FINAL

Environmental Assessment

for the

Construction of the BX Parking Lot

St Clair County Scott Air Force Base, Illinois



Prepared By:
375th Civil Engineer Squadron
Environmental Management Flight
Scott Air Force Base, Illinois 62225-5035

October 2005

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1. REPORT DATE OCT 2005		2. REPORT TYPE N/A		3. DATES COVE	RED	
4. TITLE AND SUBTITLE				5a. CONTRACT NUMBER		
Environmental Ass	sessment for the Co	nstruction of the BX	Parking Lot	5b. GRANT NUM	1BER	
				5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)				5d. PROJECT NUMBER		
				5e. TASK NUMBER		
				5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 375th Civil Engineer Squadron Environmental Management Flight Scott AFB, IL 62225-5035 8. PERFORMING REPORT NUMBER					GORGANIZATION ER	
9. SPONSORING/MONITO	RING AGENCY NAME(S) A	10. SPONSOR/MONITOR'S ACRONYM(S)				
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAIL Approved for publ	LABILITY STATEMENT ic release, distributi	on unlimited.				
13. SUPPLEMENTARY NO The original docum	otes nent contains color i	mages.				
14. ABSTRACT						
15. SUBJECT TERMS						
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Report Documentation Page

Form Approved OMB No. 0704-0188

FINDING OF NO SIGNIFICANT IMPACT TO CONSTRUCT THE BX PARKING LOT SCOTT AIR FORCE BASE, ILLINOIS

Agency: United States Air Force, Headquarters, Air Mobility Command

Background: Pursuant to the President's CEQ regulations, {Title 40 Code of Federal Regulations (CFR) Parts 1500-1508}, the National Environmental Policy Act of 1969 {42 USC §4321, et seq.}, and the Environmental Impact Analysis Process, as promulgated at 32 CFR Part 989, the U.S. Air Force conducted an Environmental Assessment of the potential consequences associated with the construction of the Base Exchange (BX) parking lot at Scott AFB, IL. The EA considered potential natural resources, environmental, and cultural impacts of the construction of the BX parking lot (hereinafter, "Proposed Action") and listed alternatives. This Finding of No Significant Impact (FONSI) summarizes the results of this EA and provides the U.S. Air Force's rationale for the Proposed Action and No-Action Alternative.

PROPOSED ACTION: The Proposed Action includes constructing a new parking lot at the corner of West Winters Street and Scott Drive. The parking lot would include approximately 200 marked parking spaces. Other features incorporated into the design of the parking lot would include: storm water drainage, lighting, and island planters.

Alternatives: The alternative to the Proposed Action is the No-Action. Implementation of the No-Action Alternative does not alleviate the lack of sufficient parking in the vicinity of the BX.

Cultural and Historical Resources: The Proposed Action is located in an area where there are no existing facilities or structures. Historically, the site has been highly disturbed. No artifacts or historical objects are expected to be excavated during construction. In the unlikely event artifacts or historical objects are discovered, construction activities would cease until the Cultural Resources Specialist and Base Historian are notified and the appropriate action is accomplished.

Air Quality: Fugitive dust and construction vehicle exhaust would be generated during construction of the Proposed Action. The estimated values of direct and indirect emissions are below the *de minimus* thresholds specified at 40 CFR 93.153(b)(1). Therefore, the Proposed Action would not increase emissions over baseline emission levels. The Proposed Action would be in compliance with all relevant requirements and milestones contained in the Illinois State Implementation Plan; therefore, a conformity determination would not be necessary.

Hazardous Materials and Waste: The site of the Proposed Action is located at the Installation Restoration Program (IRP) site SS-06. SS-06 is the location of the former Army and Air Force Exchange Service (AAFES) gas station and there is the potential for contaminated soils to be encountered during construction activities. No impacts related to potential contamination are expected as long as workers follow an approved Health and Safety Plan and Emergency Response Plan. Any potentially contaminated soils encountered during excavation would be stockpiled on-site and disposed of in accordance with appropriate Scott AFB, State, and Federal regulations.

The use of hazardous materials during construction activities would be limited, and generation of hazardous waste would not be anticipated from the Proposed Action. There would be no anticipated impact to human health or the environment during construction activities or from activities associated with implementation of the Proposed Action.

Noise: Some noise impacts would occur during the construction of the Proposed Action. The amount of noise generated from operational activities would be temporary and negligible.

Geology and Soils: The surface area would be disturbed by construction activities at the Proposed Action; however, construction would not negatively affect surface or geological resources. Necessary measures and best management practices would be utilized to prevent soil erosion during and after construction activities. Sub-surface soils at the site already contain elevated levels of contaminants and it is not anticipated that the construction of a parking lot would contribute to further contamination. Placing a concrete parking lot over the existing contaminated soils would limit the potential for exposure to these soils.

Water Resources: No significant impact to groundwater quality is anticipated from the implementation of the Proposed Action. Groundwater at the site already contains elevated levels of contaminants and it is not anticipated that the construction of a parking lot would contribute to further groundwater contamination. Scott AFB is in the process of implementing a Land Use Control Memorandum of Agreement that prohibits the use of groundwater as a source of drinking water.

No significant impact to surface water is anticipated as long as proper BMPs are used and any contaminated soil encountered during excavations is properly stockpiled and disposed of in accordance with Scott AFB, State, and Federal regulations.

There are no wetlands or floodplains present at the site of the Proposed Action. Therefore, no impacts are anticipated to these resources.

Safety and Occupational Health: If the Proposed Action is implemented, no unfavorable impacts to occupational health and safety are projected provided workers comply with OSHA regulations and standards during construction activities. The site is known to contain soils contaminated with petroleum products and construction workers would follow an appropriate Health and Safety Plan and Emergency Response Plan to minimize exposure to contaminated soils.

Biological Resources: No biological resources, including endangered or threatened species, or rare fauna and flora inhabit the Proposed Action area. As such, no impacts are probable.

Ordnance: No ordnance is associated with the Proposed Action. There would be no impacts relating to ordnance.

Environmental Justice: There would be no disproportionately high or adverse impact on minority or low-income populations as a result of the Proposed Action.

Indirect and Cumulative Impacts: No impacts are anticipated from site-specific, direct, indirect, or cumulative impacts associated with the Proposed Action.

Relationship Between Short-term Uses and Enhancement of Long-Term Productivity: Implementation of the Proposed Action could generate a positive impact to the economy of the BX.

Irreversible and Irretrievable Commitment of Resources: There would be minor irreversible and irretrievable commitment of resources if the Proposed Action were selected. Military funds would be permanently expended, building materials would be permanently committed for construction, and the area proposed for new construction would be a long-term commitment of resources. However, the overall impact would be considered inconsequential.

Unavoidable Adverse Impacts: There would be no major unavoidable adverse impacts associated with the Proposed Action.

FINDING OF NO SIGNIFICANT IMPACT: Based upon my review of the facts and analyses contained in the attached Environmental Assessment for the Construction of the BX Parking Lot dated October 2005, I conclude that implementation of the Proposed Action would not have a significant impact, either by itself or cumulatively with other projects at Scott AFB. Accordingly, the requirements of NEPA, the CEQ regulations, and 32 CFR 989 are fulfilled and an Environmental Impact Statement is not required. The signing of this Finding of No Significant Impact completes the environmental impact analysis process under Air Force Regulations.

RAYMOND J. ROTTMAN, Colonel, USAF

Commander

DATE

Attachment:

Environmental Assessment

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LIST OF ABBREVIATIONS AND ACRONYMS

AAFES Army and Air Force Exchange Service

ACM asbestos-containing materials

AFB Air Force Base
AFH Air Force Handbook
AFI Air Force Instruction
AFMAN Air Force Manual

AICUZ Air Installation Compatible Use Zone

AQCR Air Quality Control Region

BGP Base General Plan
bgs below ground surface
BMP best management practice

BX Base Exchange CAA Clean Air Act

CEQ Council on Environmental Quality

CES/CEV Civil Engineering Squadron/Civil Environmental Flight

CFR Code of Federal Regulation

dB decibels

DoDI Department of Defense Instruction

EA Environmental Assessment

EM Engineer Manual EO Executive Order

EPA Environmental Protection Agency EPC Environmental Protection Committee

EPCRA Emergency Planning and Community Right to Know Act

FIP Federal Implementation Plan FONSI Finding of No Significant Impact

gpm gallons per minute

IEPA Illinois Environmental Protection Agency
INRMP Integrated Natural Resource Management Plan

IRP Installation Restoration Program

LBP lead-based paint
MAJCOM Major Command
mgd million gallons per day

NAAQS National Ambient Air Quality Standard NEPA National Environmental Policy Act

NPDES National Pollutant Discharge Elimination System OSHA Occupational Safety and Health Administration

P2 pollution prevention ppm parts per million

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LIST OF ABBREVIATIONS AND ACRONYMS (Cont'd)

PCB polychlorinated biphenyl

RCRA Resource Conservation and Recovery Act RI/FS remedial investigation/feasibility study

ROI Region of Influence

SHPO State Historic Preservation Office

SIP State Implementation Plan

SMSA Standard Metropolitan Statistical Area

TO Technical Orders

UFC Unified Facilities Criteria
USAF United States Air Force
USC United States Code

USTRANSCOM United States Transportation Command

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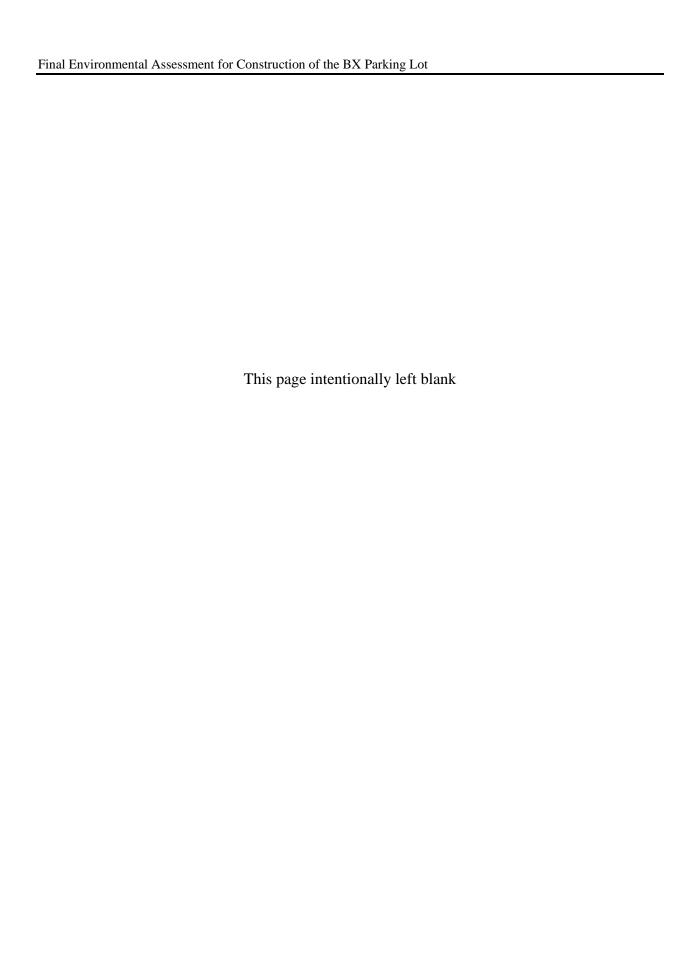
EXECUTIVE SUMMARY

The 375th Civil Engineer Squadron proposes to construct a new Base Exchange (BX) parking lot at the corner of West Winters Street and Scott Drive, located at Scott Air Force Base (AFB) in Illinois. The new parking lot will provide additional parking spaces in the Major Command (MAJCOM) Administration Area and help to alleviate the parking shortage in this area.

This Environmental Assessment (EA) has been prepared in accordance with the *National Environmental Policy Act of 1969* (NEPA), the Council on Environmental Quality regulations [40 Code of Federal Regulations (CFR), sections 1500-1508], and Air Force Instruction 32-7061, *Environmental Impact Analysis Process*, as promulgated at 32 CFR 989. This EA focuses on specific issues and concerns of the Proposed Action and the alternatives that could affect the environment of Scott AFB and the surrounding properties. The range of alternatives includes taking No-Action and implementing the Proposed Action.

The footprint of the new parking lot would be approximately two acres of property that is currently a maintained turf grass area. Implementation of the Proposed Action would create approximately 200 parking spaces.

ES-1 FINAL



ES-2 FINAL

1.0 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

The Proposed Action is located at Scott Air Force Base in St. Clair County, Illinois, which is approximately 20 miles east of St. Louis, Missouri. The base comprises approximately 3,600 acres and is located in a predominantly agricultural area. The base is immediately south of Interstate Highway 64 (Figure 1-1), near the cities of O'Fallon and Belleville.

The Base Exchange (BX) provides quality merchandise and necessary services/conveniences to authorized patrons at uniformly low prices. The BX also serves to generate earnings to supplement appropriated funds for the Services Squadron programs at Scott AFB. When the BX was constructed at its current location adjacent to the base commissary it was determined that additional parking for these facilities would be required. To alleviate some of the parking problems the 375th Civil Engineer Squadron proposes to construct a 200 space parking lot near the BX at the corner of West Winters Street and Scott Drive (Figure 1-2).

1.2 NEED FOR ACTION

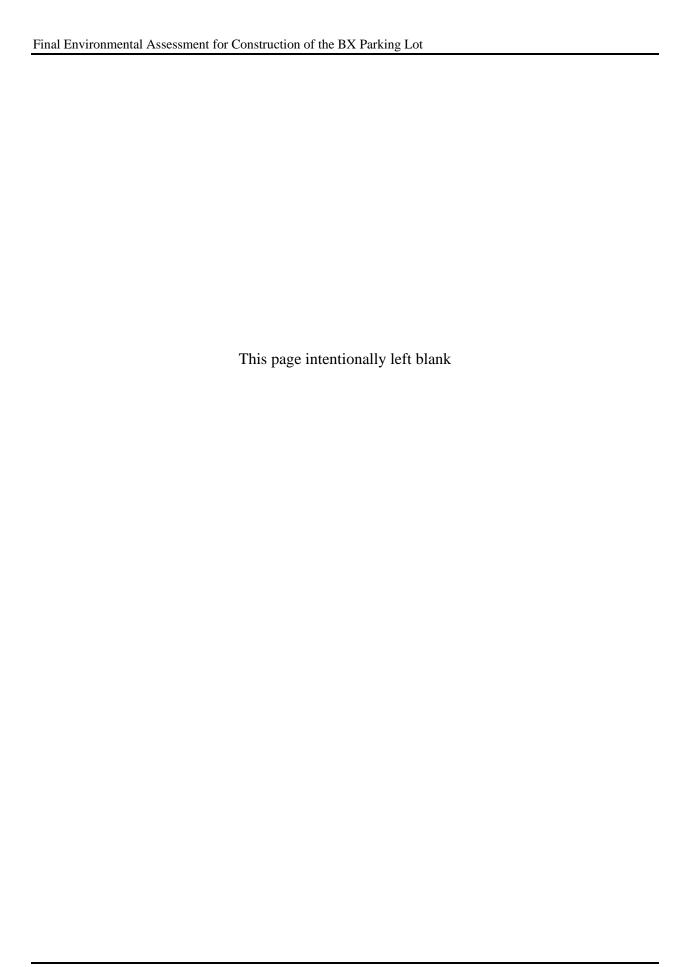
The existing parking lot at the combined BX/Commissary provides approximately 650 parking spaces. While no specific parking demand information was available, both the Traffic and Safety Engineering Study (Gannett Fleming, 2003) and guidance provided in AFH 32-1084 indicate that the current parking at the BX/Commissary is insufficient for a retail facility. An additional parking study conducted for the Base General Plan (BGP) (375 CES, 2004) indicated that parking in the area surrounding the United States Transportation Command (USTRANSCOM) (Building 1900) was also inadequate. Construction of the BX parking lot would alleviate some of the parking demand at Building 1900.

Without the Proposed Action, consumers at both the BX and the Commissary will be subjected to traffic congestion and have difficulty finding parking spaces. The Traffic and Safety Engineering Study states that "inadequate parking cripples efficient traffic flow, causes driver frustration, and discourages potential customers" (Gannett Fleming, 2003). These conditions may lead to potential economic consequences as consumers choose to shop elsewhere rather than deal with traffic congestion and lack of adequate parking. Parking within the MAJCOM Administration Area, particularly the USTRANSCOM building, is also affected by the lack of parking in this area.

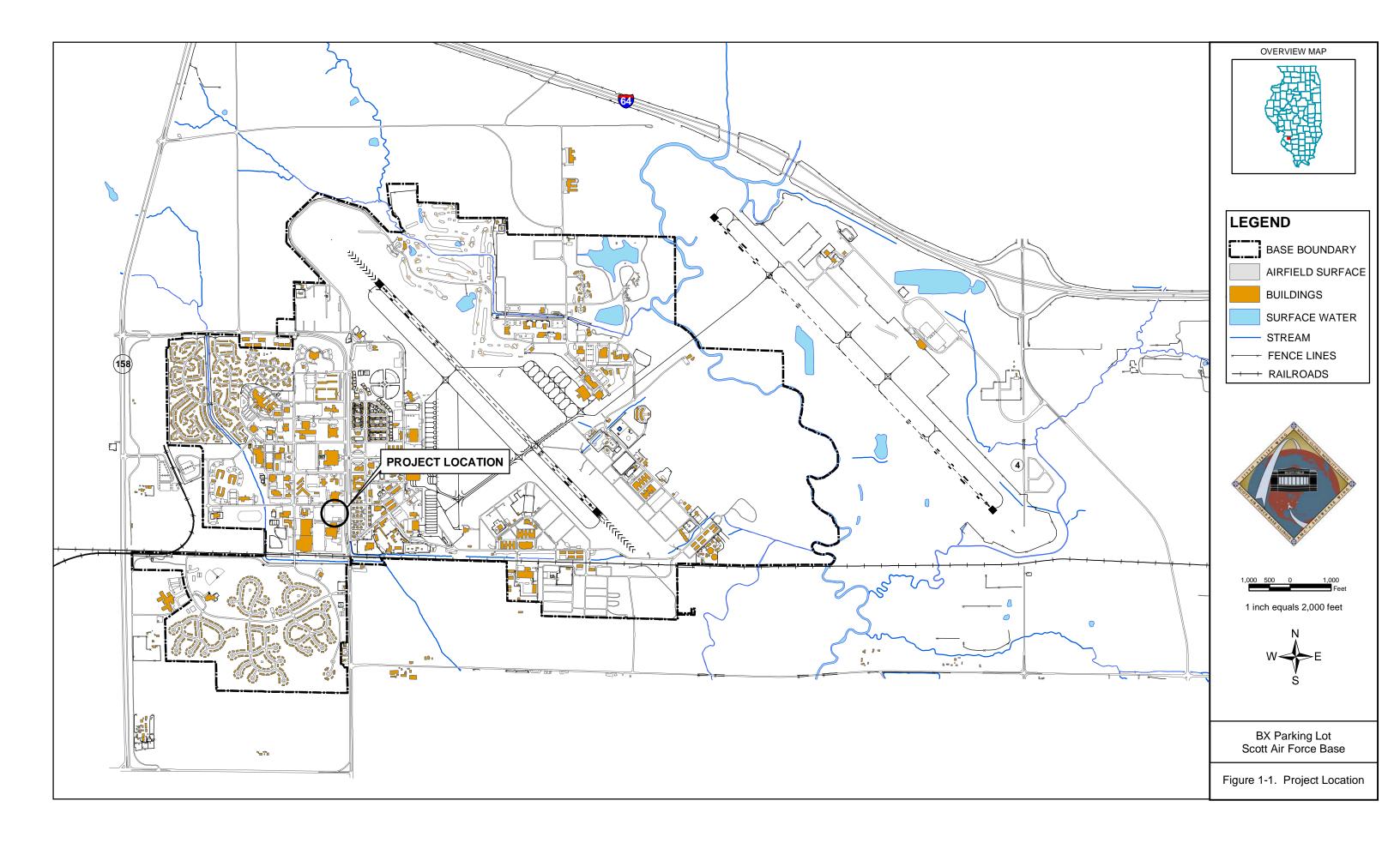
1.3 OBJECTIVE

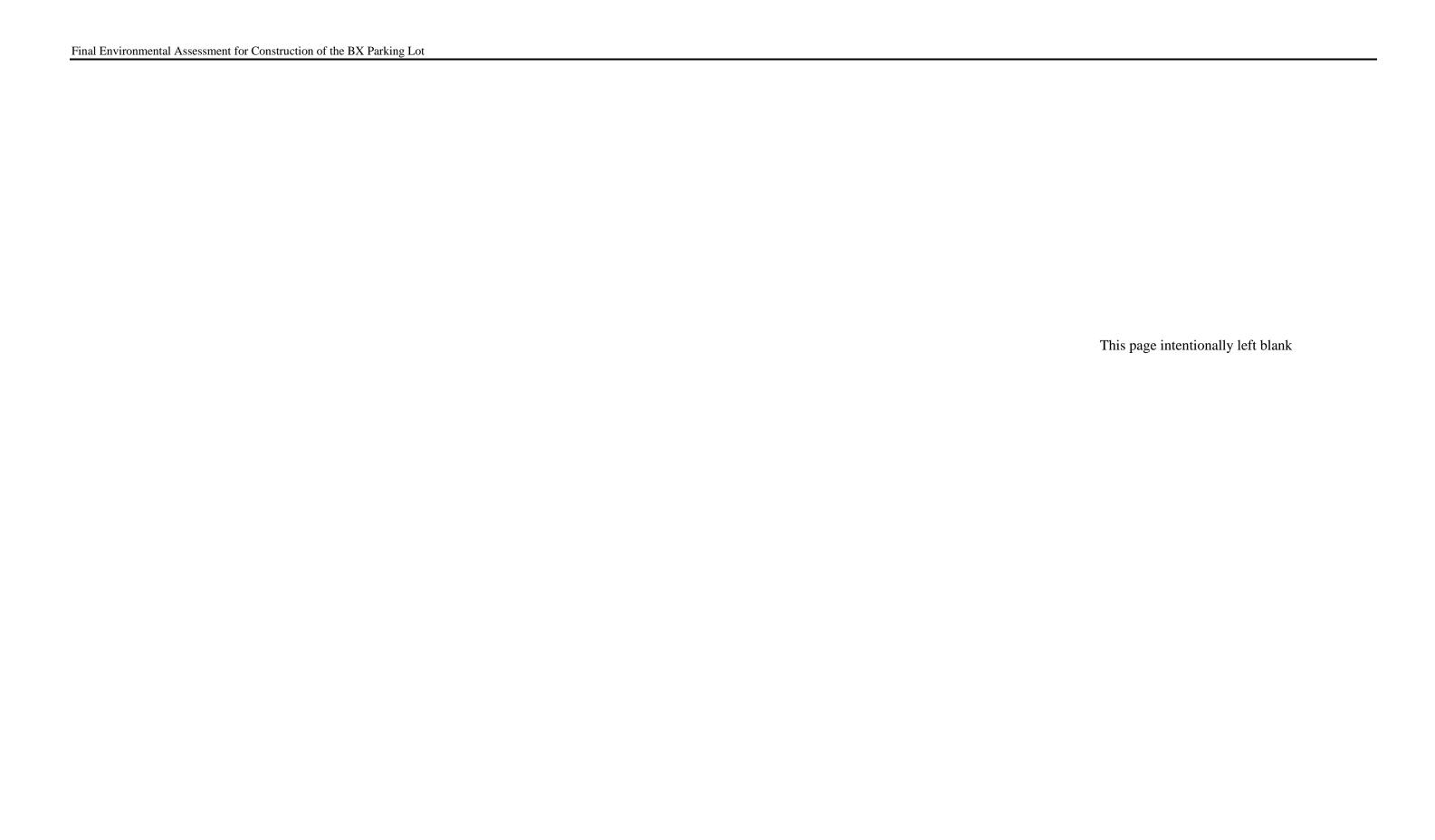
The objective of this Environmental Assessment (EA) is to evaluate the potential impacts associated with the implementation of the Proposed Action and the No-Action Alternative and to determine the significance of those impacts. If the potential impacts are not considered significant, a Finding of No Significant Impact (FONSI) will be prepared.

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1-2 FINAL





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1.4 SCOPE OF THE EA

This EA identifies, describes, and evaluates the potential environmental impacts associated with implementation of the Proposed Action and the No-Action Alternative. Furthermore, this document includes an analysis of the impacts of the Proposed Action and the No-Action Alternative as they relate to the following environmental and socioeconomic programs:

- Air Quality
- Noise
- Wastes, Hazardous Materials/Stored Fuel
- Land Use
- Safety and Occupational Health
- Water Resources
- Floodplains and Wetlands
- Biological Resources
- Environmental Management

- Geology and Soils
- Socioeconomics
- Cultural Resources
- Transportation
- Airspace/Airfield Operations
- Pollution Prevention
- Environmental Justice

1.5 DECISION(S) THAT MUST BE MADE

The decision to be made will include selecting one of the alternatives described as follows:

Proposed Action: This alternative consists of the construction of an approximately two acre parking lot at the corner of West Winters Street and Scott Drive. The parking lot would include approximately 200 parking spaces. Parking lot improvements would include island planters, pavement markings, storm sewers, and lighting.

No-Action Alternative: The parking at the BX would remain status quo with this alternative and parking for the BX would remain inadequate.

Upon review of this document, the 375th Airlift Wing Environmental Protection Committee (EPC) Chairperson at Scott AFB will decide which alternative to implement.

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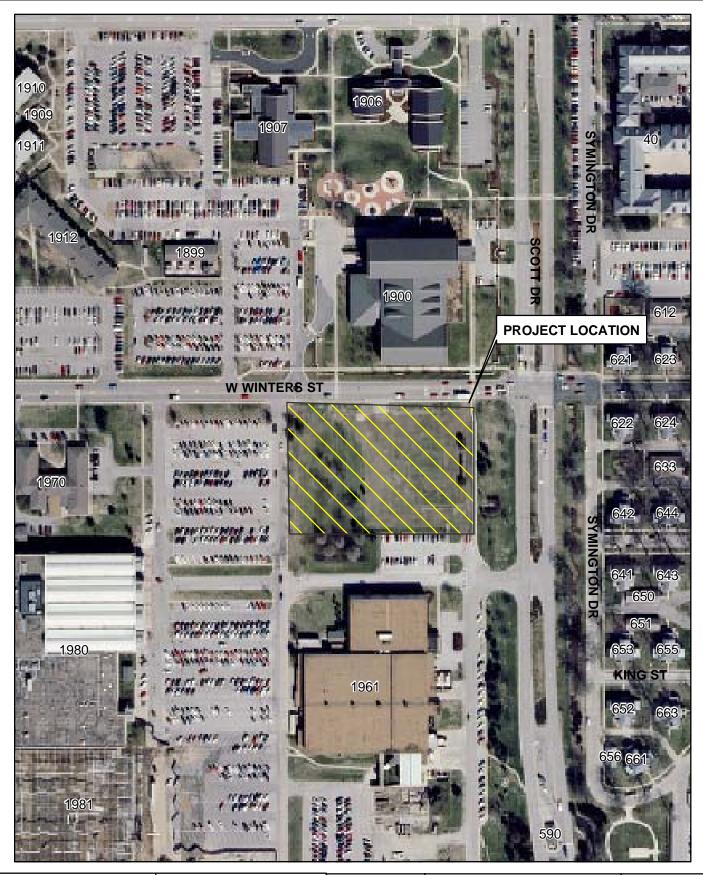
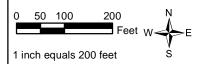


Figure 1-2. Site Location

BX Parking Lot Scott Air Force Base







1.6 APPLICABLE REGULATORY REQUIREMENTS AND REQUIRED COORDINATION

Following is a list of Air Force Instructions (AFI), Executive Orders (EO), Acts, Air Force Manuals (AFMAN), Engineer Manual (EM), Code of Federal Regulations (CFR), Department of Defense Instructions (DoDI), and Technical Orders (TO) that are applicable to the Proposed Action.

- *National Environmental Policy Act*, Public Law 91-190, 42 United States Code (USC) 4321-4347, January 1, 1970;
- Council on Environmental Quality (CEQ) regulations, 40 CFR parts 1500 through 1505;
- EO 11988 and 11990, Floodplain Management and Protection of Wetlands;
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations;
- *Clean Air Act* (1970, Amended 1990);
- Corps of Engineers Manual, EM 385-1-1, General Safety Requirements;
- 32 CFR, Part 989, Environmental Impact Analysis Process;
- AFI 32-7062, Air Force Comprehensive Planning;
- AFI 32-7064, Natural Resources Management;
- AFI 32-7065, Cultural Resources Management;
- DoDI 4165.57 and AFI 32-7063, Air Installation Compatible Use Zone (AICUZ) Programs;
- 29 CFR, Occupational Safety and Health Standards;
- AFMAN 32-1123, Unified Facilities Guide;
- AFH 32-1084 Civil Engineer Facility Requirements;
- 40 CFR 93.153, Air Conformity Determination;
- Resource Conservation Recovery Act (RCRA) 1970.

In addition to this list, coordination with regulatory agencies is discussed below.

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The State Historic Preservation Office (SHPO) is not typically notified of new construction, unless the project involves the demolition or alteration of a historical building or structure. There are no existing structures at the site of the Proposed Action.

Various permits would be required for activities such as construction or extensions of sanitary/storm sewers and water mains, and other related activities. In addition to the aforementioned requirements and prior to construction, a Digging Permit, Air Force Form 103, (Base Civil Engineering Work Clearance Request) is required under AFI 32-1031 and Illinois Underground Utility Facilities Damage Prevention Act, Public Act 86-0674, amended 88-0681 and AFI 32-1031. This section is not all-inclusive, as environmental regulations and standards are frequently modified.

During implementation of one of the construction alternatives, the 375th Civil Engineering Squadron/Civil Environmental Flight (CES/CEV) (Environmental Management Flight) would be notified immediately if an action or activity were observed that could adversely affect human health and/or the environment. This organization would take immediate action to correct the condition or contact Illinois Environmental Protection Agency (IEPA) for further guidance, if necessary. Best management practices are encouraged throughout the construction process.

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2.0 DESCRIPTION OF THE ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 INTRODUCTION

This section describes the selection criteria for alternative sites, details of the Proposed Action and No-Action, and past and reasonably foreseeable future actions relevant to cumulative impacts.

2.2 SELECTION CRITERIA FOR ALTERNATIVES

- 1) Minimum impact to the environment
- 2) Location must have sufficient area to provide additional parking for the BX
- 3) Location must be within a reasonable walking distance of the BX
- 4) Location must meet long-term development plans
- 5) Location must meet the Base General Plan provisions

Alternatives considered for this EA include the Proposed Action and the No-Action Alternative. Additional alternative sites at Scott AFB were considered and eliminated due to the lack of suitable open space within a reasonable walking distance of the BX (see Section 2.3).

The Proposed Action was selected based upon the ability to meet the selection criteria listed above. The action is compatible with the October 2004 BGP for the MAJCOM Administration Area. The BGP provides an illustration of Scott AFB's present and future capability to support its mission. The BGP is a stand-alone document prepared to respond to the Air Force's commitments to planning for future development and protecting the environment, as prescribed in the AFI 32-7062, Air Force Comprehensive Planning. The alternative sites considered but eliminated did not meet the above criteria for this type of project.

2.3 ALTERNATIVE SITES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

Alternatives to constructing a new parking lot at the corner of West Winters Street and Scott Drive were considered in the early planning process. The only potential open space within a reasonable distance from the BX was the site of the Proposed Action. Additional sites with existing structures were evaluated including the sites of Buildings 1970 and 1961. These buildings are both in the vicinity of the BX and are scheduled for demolition. The BGP lists the site of Building 1961 as the future location of a Community Service Development Site and the demolition of Building 1971 is dependant upon the construction of a new Security Forces Complex. Construction of the Security Forces Complex is currently planned for Fiscal Year 2008.

The BGP lists the use of MetroLink buses and pedestrian traffic as alternative means to reduce parking demand in the vicinity of the BX. These methods alone are not anticipated to alleviate the parking shortage at the BX.

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2.4 DESCRIPTION OF PROPOSED ALTERNATIVES

Proposed Action

This alternative consists of the construction of a new parking lot. The parking lot would include approximately 200 marked parking spaces. Other features incorporated into the design of the parking lot would include: storm water drainage, lighting, and island planters.

No-Action Alternative

The current BX parking would remain status quo with the No-Action Alternative.

2.5 DESCRIPTION OF PAST AND REASONABLY FORESEEABLE FUTURE ACTIONS RELEVANT TO CUMULATIVE IMPACTS

The location of the Proposed Action is in a portion of Scott AFB that is considered to be an improved area that is highly disturbed. The current base plan (375 CES, 2004) indicates several potential projects in the vicinity of the Proposed Action (see Section 3.16). None of these projects are anticipated to have significant cumulative impacts.

2.6 IDENTIFICATION OF PREFERRED ALTERNATIVE

The preferred alternative, referred to as the Proposed Action, includes constructing a new BX parking lot at the corner of West Winters Street and Scott Drive.

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3.0 AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This section describes the environmental components that could be affected by the construction and operation of the Proposed Action and the No-Action Alternative. Section 3.0 serves as a baseline for evaluating the environmental status of the Proposed Action and the No-Action Alternative. Additionally, this EA addresses the following environmental issues:

- Air Quality;
- Noise:
- Wastes, Hazardous Materials, and Stored Fuels;
- Water Resources, to include Floodplains and Wetlands;
- Biological Resources;
- Socioeconomic Resources;
- Cultural Resources:
- Land Use:
- Transportation Systems;
- Airspace/Airfield Operations;
- Safety and Occupational Health;
- Environmental Management, Pollution Prevention;
- Geology and Soils;
- Environmental Justice; and
- Indirect and Cumulative Impacts.

The aforementioned issues are not listed in order of significance.

3.2 AIR QUALITY

The Federal *Clean Air Act* (CAA) of 1970 required the adoption of air quality standards. These were established to protect public health, safety and welfare from known or anticipated effects of sulfur dioxide (SO₂), particulates (PM_{2.5} and PM₁₀), carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), and lead (Pb).

The CAA requires all states to submit to the United States Environmental Protection Agency (EPA) a list identifying those air quality control regions, or portions thereof, which meet or exceed the National Ambient Air Quality Standards (NAAQS) or cannot be classified because of insufficient monitoring data. Portions of air quality control regions that are shown, by monitored data or air quality modeling, to exceed the NAAQS for any criteria pollutant are designated "non-attainment" areas for that pollutant. Section 176(c) of the Clean Air Act Amendments of 1990, 42 USC, Section 7506(c), establishes a conformity requirement for federal agencies which has been implemented by regulation 40 CFR Part 93, Subpart B.

Scott AFB occurs within the Metropolitan St. Louis Interstate Air Quality Control Region (AQCR #070). The state air quality-monitoring site closest to Scott AFB is the East St. Louis monitoring station, located in St. Clair County approximately 18 miles west of the base.

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Table 3-1 compares the applicable federal ambient air quality standards with the East St. Louis monitoring site maximum pollutant concentrations for the 3-year period 2002-2004 (U.S. EPA 2005).

Table 3-1. Comparison of Air Quality Measurements in St. Clair County (East St. Louis Station) with Federal Standards

Station) with Federal Standards					
		Federal Ambient Air Quality Standards (ppm) ¹	Maximum Concentration (ppm) ¹		
D. H. A.	Averaging		2002		2004
Pollutant	Period	Primary	2002	2003	2004
Carbon	1 hour	35	3.5	4.4	3.4
monoxide	8-hour	9	2.8	3.2	2.2
Nitrogen oxide	Annual	0.053	0.017	0.016	0.016
Particulate	24-hour	$150 \mu/\text{m}^3$	$107 \mu/m^3$	$70 \mu/\text{m}^3$	$54 \mu/\text{m}^3$
Matter (PM ₁₀)	Annual	$50 \mu/\text{m}^3$	$30 \mu/\text{m}^3$	$34 \mu/m^3$	$29 \mu/m^{3}$
Particulate	24-hour	$65 \mu/\text{m}^3$	$89 \mu/m^3$	$51 \mu/\text{m}^3$	$35 \mu/\text{m}^3$
Matter $(PM_{2.5})^2$	Annual	$15.0 \mu/m^3$	$16.7 \mu/\text{m}^3$	$14.9 \ \mu/m^3$	14.7 μ/m^3
Lead	Quarterly mean	$1.5~\mu/\text{m}^3$	$0.04 \ \mu/m^3$	$0.06~\mu/m^3$	$0.05 \ \mu/m^3$
	3-hour	0.5	0.190	0.168	0.124
Sulfur dioxide	24 hour	0.14	0.056	0.049	0.039
	Annual	0.030	0.006	0.005	0.004
Ozone ³	1-hour	0.120	0.117	0.134	0.102
Ozunc	8-hour	0.080	0.103	0.111	0.078

¹Unless otherwise stated

This AQCR is designated as a moderate non-attainment area for ozone and PM_{2.5}, a limited maintenance area for carbon monoxide, and either as attainment or no designation for the remaining pollutants.

3.2.1 Emissions Inventory

This section presents information on air pollutant emissions from activities at Scott AFB. The Scott AFB emissions are also compared with ozone-producing pollutant emissions from the Illinois portion of the St. Louis Standard Metropolitan Statistical Area (SMSA) of AQCR #070. The St. Louis SMSA emission inventory accounts for emission sources in St. Clair County, as well as emission sources from four other counties.

Table 3-2 summarizes annual emissions at Scott AFB by source category for calendar year 1998. This table was developed from an emission inventory compiled by Scott AFB (Laura Dods, pers. comm., 2004). Emissions, reported in tons per year, are organized into 18 categories: external

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²There was one exceedance in 2002 with no exceedances in 2003 and 2004.

³For the 1-hour standard there were no exceedances in 2002 and 2004 and two exceedances in 2003 from this monitor. For the 8-hour standard, there were nine exceedances in 2002, three exceedances in 2003, and no exceedances in 2004 from this monitor.

combustion services, stationary internal combustion engines, medical waste incineration, storage tanks, fuel transfers, equipment leaks, spray painting booths, solvent parts washers, miscellaneous product usage, fire fighter training, fuel cell maintenance, landfills, non-destructive inspection, ordnance detonation, pesticide application, small arms range, wet cooling towers, and woodworking.

Table 3-2. Air Pollutant Emissions Inventory for Scott AFB in 1998 (tons/year)

Source Category	Carbon	Nitrogen	Particulate	Sulfur	Volatile
Source category	Monoxide	Oxides	Matter	Oxides	Organic
	112011021146	Omacs	17240001	o mucs	Compounds
External Combustion	2.24	2.82	0.216	0.017	0.156
Sources					
Stationary Internal	1.12	4.98	0.186	0.154	0.210
Combustion Engines					
Medical Waste Incineration	0.100	0.120	0.103	0.073	0.010
Storage Tanks					3.32
Fuel Transfers					6.52
Equipment Leaks			0.003		0.134
Spray Painting Booths					0.232
Solvent Parts Washers					0.262
Miscellaneous Product					0.374
Usage					
Fire Fighter Training	0.031	0.112	0.019		0.048
Fuel Cell Maintenance					0.013
Landfills	0.147				1.90
Non-Destructive Inspection					< 0.001
Ordnance Detonation	< 0.001	< 0.001	< 0.001		< 0.001
Pesticide Application					0.116
Small Arms Range	0.010				
Wet Cooling Towers			0.449		
Woodworking			0.770		

3.3 NOISE

Department of Defense Instruction 4165 establishes and requires military departments to develop, implement, and maintain an Air Installation Compatible Use Zone (AICUZ) program for installations with flying operations. AFI 32-7063, AICUZ Program sets forth the policy, responsibilities, and requirements of the program. Topics covered include program objectives, responsibilities, land use compatibility guidelines, and AICUZ studies and updating. This program is designed to provide information on flight operations and compatibility guidelines to local planners to help them mitigate the noise impacts of military aircraft operations. The AICUZ program uses information on aircraft types, flight patterns, power settings, numbers of operations, and time of day or night to estimate average busy-day noise levels. This estimation is accomplished by using the NOISEMAP computer model and the results are expressed in terms of the day-night average sound level. The latest AICUZ was completed in February 2001. Noise level contours based on the computer noise model NOISEMAP indicate the noise levels at the location of the proposed parking lot to be less than 65 decibels (dB) (Figure 3-1). Air Force

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AICUZ guidelines recommend restrictions for land use at varying noise levels. No land use restrictions exist at noise level zones below 65 dB.

Noise standards are also addressed in Occupational Safety and Health Administration (OSHA) standards and implemented by regulation 29 CFR 1910.95. The Department of Labor administers these regulations, which are applicable at construction sites and buildings at Scott AFB. Ambient noise sources in the vicinity of the location of the Proposed Action include aircraft from the flightline and normal vehicular traffic on the streets surrounding the site of the Proposed Action.

3.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

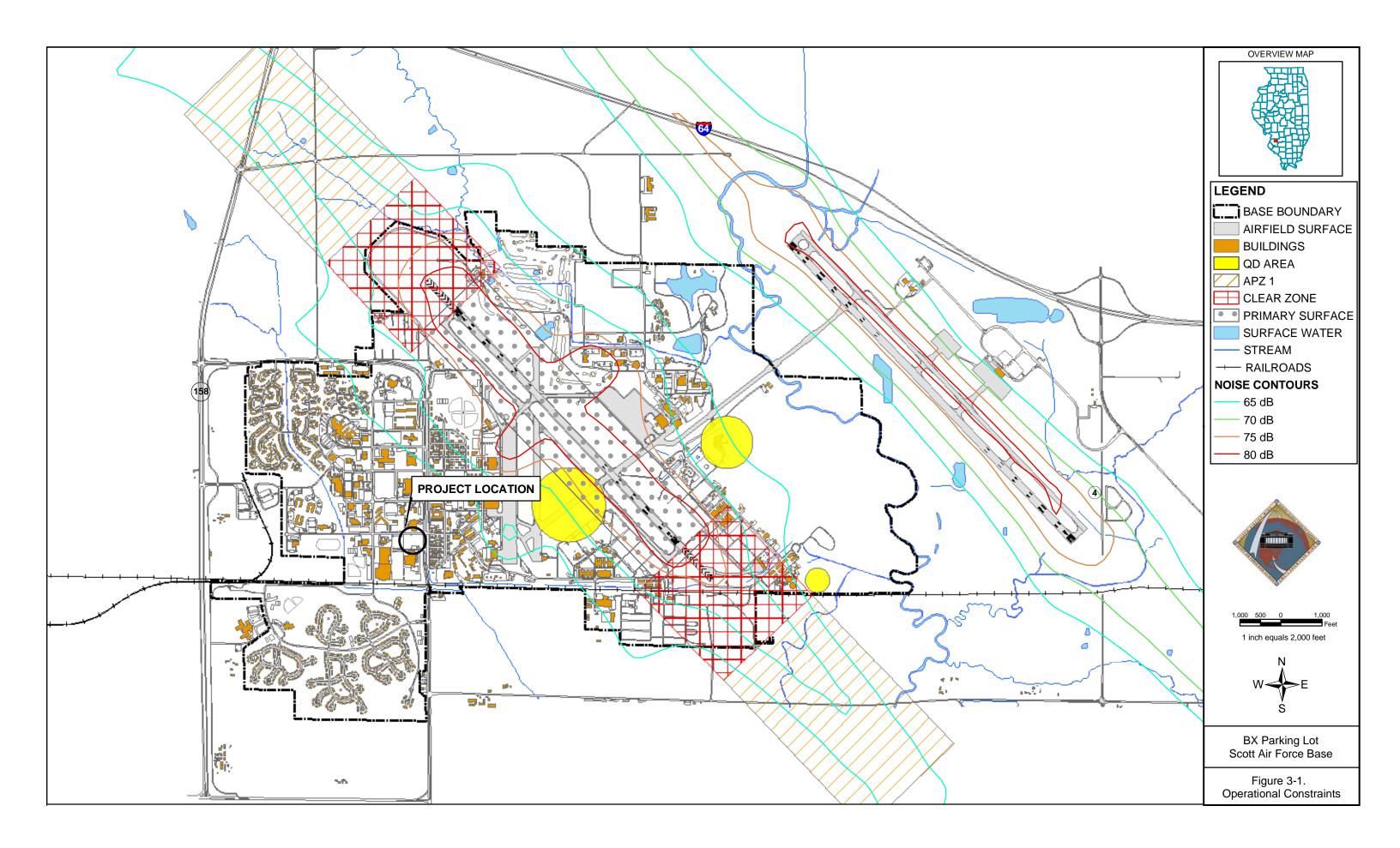
The *Resource Conservation and Recovery Act* established statutory requirements that serve as the basis of the hazardous waste regulations. These regulations are found at 40 CFR 260-279. Corresponding state regulations identifying and listing hazardous wastes and standards applicable to generators of hazardous wastes are found at 35 IAC 721-722. Hazardous chemicals and materials are defined in 29 CFR 1900.1200. Legal requirements regarding emergency planning and reporting of hazardous and toxic chemicals are noted in the *Emergency Planning and Community Right to Know Act* (EPCRA).

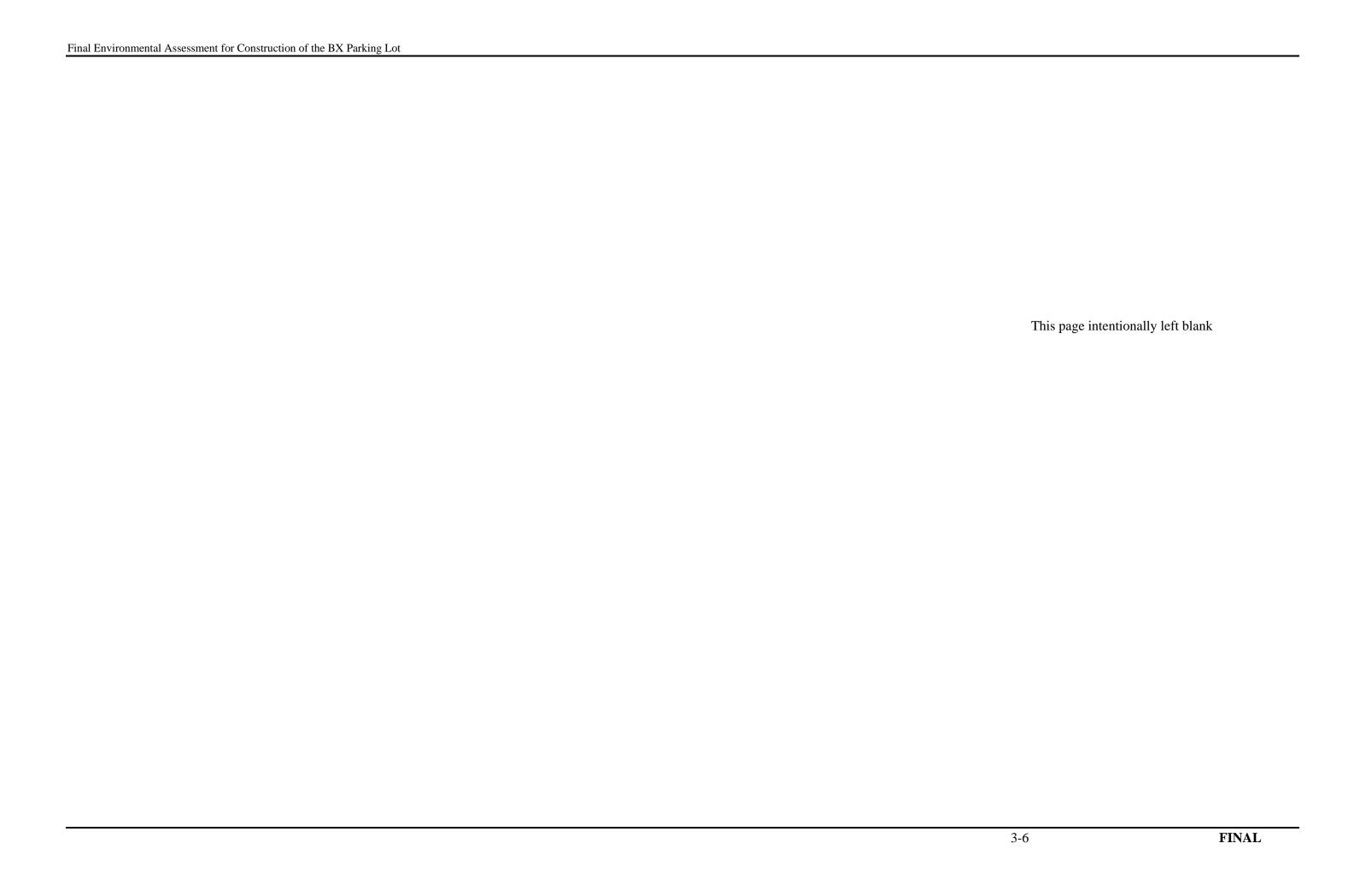
The site of the Proposed Action is located at the Installation Restoration Program (IRP) site SS-06. SS-06 is the site of the former Army Air Force Exchange Service (AAFES) service station. It is not known when the service station was closed but gasoline, diesel, and waste oil tanks were reportedly removed in 1999. The site contained three 10,000-gallon gasoline tanks, one 2,000-gallon diesel fuel tank and one 550-gallon waste oil tank. Two of the gasoline tanks were reported to have contained leaks. Site investigations for this site are described below.

Soil and groundwater investigations were conducted at the site during the 1980's and 1990's (City Design Group, 2003). These surveys collected soil and groundwater samples. Analysis of samples from these studies indicated that the groundwater and sub-surface soils contain excessive levels of petroleum related contaminants. An additional study was conducted in 2003 to establish worker protection guidelines for the installation of a storm sewer. A limited number of soil bores were taken along the proposed path of the storm sewer. The results of this study indicated that portions of the site had elevated levels of petroleum related contaminants. The study also indicated that soils within the site may have elevated levels of contaminants and would not be suitable for backfill. The *Final Site Specific Planning Documents* (Tetra Tech, 2004) outlines the design of the remedial investigation/feasibility study (RI/FS) that is currently underway at SS-06. This study includes a *Baseline Risk Assessment* for industrial/commercial and construction workers at the site.

Asbestos-containing materials (ACM) and lead-based paint (LBP) were prohibited from use as construction materials in the 1970's. There are no buildings or structure known to contain lead at the site of the proposed action. Soil samples collected at SS-06 have not detected lead above background levels for Scott AFB (City Design Group, 2003; Tetra Tech, 2005).

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3.5 WATER RESOURCES

3.5.1 Surface Water Resources

Scott AFB is located within the Lower Kaskaskia Watershed in St. Clair County. The primary streams located within Scott AFB include Ash and Silver Creek. Ash Creek originates approximately one mile northwest of the base near Shiloh, Illinois. From its origin, Ash Creek flows through the base and abuts the rear of the old commissary before discharging into Silver Creek. Silver Creek forms the western boundary of Scott AFB. The creek has steep mud banks, low stream gradient, and turbid water. The drainage area of Silver Creek, which encompasses approximately 395 square miles upstream of Scott AFB, consists primarily of farmland. Scott AFB is also drained by overland flow to diversion structures, field tiles, storm sewers, drainage ditches, and culverts. About 60 percent of the base is drained by Silver Creek and the remaining area is drained by Ash Creek (Woolpert, 2002). The site of the Proposed Action contains a drainage swale along the southern edge of the site and two storm drains on the north side of the site.

3.5.2 Floodplains

Executive Order 11988 dated May 24, 1977; entitled "Floodplain Management" defines a floodplain and establishes a policy of avoiding impacts to floodplains when practicable. Facility design and construction, real property acquisition, maintenance activities, real property disposal, and natural resource program implementation actions must comply with EO 11988. The basis for this guidance includes the *Clean Water Act* of 1977, 33 USC 1251 et seq., *National Environmental Policy Act of 1969*, (NEPA), 42 USC 4321. et. seq., the *National Flood Insurance Act of 1968*, 42 USC 4001, et seq., the *Flood Disaster Protection Act of 1973*, and Public Law 93-235, 87 Statute 975. Floodplains at Scott AFB are generally located adjacent to Silver Creek near the eastern boundary of the base (Figure 3-2). The base is currently revising the floodplain and wetland map of Scott AFB. The planned revision of the floodplain map is not anticipated to change the floodplain status in the vicinity of the Proposed Action.

3.5.3 Groundwater Resources

Scott AFB is situated in an area of southwestern Illinois that lacks aquifers of regional significance.

The significant hydrogeologic units present in the area include alluvium containing sand and gravel lenses, sand and gravel layers within the glacial deposits, and sandstone or other permeable strata within the bedrock. Water quality varies greatly, with water from the surficial deposits usually of slightly better quality than water from the bedrock units. Precipitation is the primary source of groundwater recharge in the area.

A brief description of the principal water-bearing units, in order of increasing depth, follows. The information presented in this section is derived primarily from the *Final RI/RFI Work Plan* for Site SS-14 (Consolidated Aircraft Maintenance Squadron) at the Scott Air Force Base (Montgomery Watson, 2002).

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Alluvium: The sand and gravel layers of the Cahokia alluvium include deposits of poorly sorted silt, clay, and silty sand with lenses of sand and gravel. Groundwater is present in these layers at shallow depths (1 to 3 foot below ground surface [bgs]). Its thickness varies, but it is commonly less than 50 feet. Potentially large quantities of water can be pumped from the alluvium. However, it is not used widely in the vicinity of the base because its occurrence is limited to the flood-prone lowlands and municipal water supplies are readily available to most local consumers. The alluvium is found mainly on the eastern portions of the base along the lowlands of Silver Creek.

Glacial Aquifers: The sand and gravel layers in the glacial deposits are permeable unconsolidated units that are typically thin, discontinuous, and of limited extent in the vicinity of the base. The water-bearing zones include the sand and gravel layers within the Pearl Formation and within the Vandalia Till Member of the Glasford Formation. Data from test wells installed in 1942 by the Illinois State Water Survey indicated that the discontinuous sand and gravel zones ranged in thickness from 1 to 12 feet. Groundwater occurred at depths ranging from 10 to 35 feet bgs in these wells, as measured by Environmental Resources Management in 1991. East of Silver Creek, small industrial and municipal wells having yields of about 20 gallons per minute (gpm) may be possible in these glacial aquifers. Groundwater reportedly discharges to the underlying bedrock or to local surface water as base flow.

Bedrock Aquifers: Pennsylvanian age bedrock lies approximately 85 feet bgs in the vicinity of the base and is approximately 265 feet thick. The strata consist of low permeability shale with thin discontinuous beds of sandstone and limestone. The sandstone and limestone can yield small quantities of water to domestic supplies, with recharge occurring from the overlying unconsolidated materials. Groundwater flow through these strata is generally to the southeast towards deeper parts of the Illinois Basin. Water-bearing fractures are most likely to occur in the upper 50 feet of the bedrock. Underlying the Pennsylvanian strata is Chesterian Series (Mississippian Age) bedrock, which includes permeable sandstones. The reported yield of wells completed in these sandstones ranges from 20 to 50 gpm, with drawdowns varying from 175 to 300 feet.

According to various studies conducted at the site of the Proposed Action groundwater flow is generally to the east-northeast at a rate of between 0.0198 to 0.00221 ft/day. Groundwater elevations have been recorded at depths between 6.7 to 9.0 feet bgs (Tetra Tech, 2004).

3.5.4 Water Use and Treatment

The Clean Water Act regulates water quality. These regulations are found at 40 CFR, Subchapter D. Scott AFB is situated in an area of southwestern Illinois that lacks aquifers of regional significance. Precipitation is the primary source of groundwater recharge in the project area. Most communities in St. Clair County, including Scott AFB and several communities in the Granite City area in Madison County, obtain their water from the Mississippi River through the Illinois-American Water Company. No drinking water wells are known to be in use within the boundaries of Scott AFB. However, domestic and agricultural users within 10 miles of the base obtain a limited amount of water from shallow aquifers.

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An on-site sewage treatment plant serves Scott AFB with a capacity of two million gallons per day (mgd). The sewage flow averages about 1.45 mgd. The plant provides tertiary treatment, and the effluent is discharged to a tributary of Silver Creek at the southeast part of the base (Woolpert, 2002).

3.5.5 Wetlands

The Clean Water Act, noted earlier in this section, sets the basic structure that regulates discharges and dredged materials that could enter wetlands. There are many other laws and regulations, such as the Federal Agriculture Improvement and Reform Act, the North American Wetlands Conservation Act, and the Endangered Species Act, that are applicable to wetlands protection. By definition, wetlands are transitional lands between terrestrial and aquatic systems where the water table is usually at the surface or the land is covered by shallow water. Wetlands generally include swamps, marshes, bogs, and similar areas. Per the Federal Interagency Committee on Wetland Delineation (1989), jurisdictional wetlands are those that are found to contain:

- 1) Hydrophytes (plants that grow in water or on soils periodically deficient in oxygen due to inundation by water);
- 2) Hydric soils (soils that are saturated, ponded, or flooded long enough to produce anaerobic conditions);
- 3) Wetland hydrologic conditions (permanent or periodic inundation or soil saturation to the surface).

The largest area of wetlands at Scott AFB is located within the bottomland forest adjacent to Silver Creek (Figure 3-2). Other wetland resources located at Scott AFB include those located adjacent to Ash Creek and a number of ponds and depressional wetlands scattered throughout the base.

3.6 BIOLOGICAL RESOURCES

Air Force Instruction 32-7064, Integrated Natural Resources Management, and the *Endangered Species Act* address biological resources. No plants listed as endangered by the Illinois Endangered Species Protection Board were found at Scott AFB during botanical surveys conducted on September 19, 2001. Although no botanical endangered species were discovered, suitable habitat does exist for both state and federally listed species within the Scott AFB boundaries. No such habitat is located at the site of the Proposed Action.

A single federally endangered Indiana bat (*Myotis sadalis*) was captured during a study conducted by personnel from the U.S. Engineer Research and Development Center in July 2001. The Indiana bat was identified along Silver Creek near the confluence of Carolina Creek (USAERDC, 2002). Although suitable habitat for the Indiana bat is found at Scott AFB, none exists in the vicinity of the Proposed Action.

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The only state endangered animal species identified at Scott AFB is the little blue heron. The presence of a little blue heron was incidentally noted during the 2001 bird survey. The little blue heron is not present at the site of the Proposed Action, nor does any suitable habitat for the little blue heron exist at the site.

Biological resources at the site of the Proposed Action are limited to a maintained lawn with ornamental plantings. Ornamental species planted at the site include: bald cypress, tulip tree, Norway maple, river birch, various pines, juniper, and barberry.

3.7 SOCIOECONOMIC RESOURCES

The Location and Region of Influence (ROI) for the Proposed Action is Scott AFB, located in St. Clair County, Illinois, approximately 20 miles east of the City of St. Louis, Missouri. The base covers approximately 3,600 acres and is located in a predominantly agricultural area. The base is immediately south of Interstate Highway 64 (Figure 1-1), near the cities of O'Fallon and Belleville. The socioeconomic ROI for an analysis of this type is generally defined by the residence patterns of current installation personnel, the number of personnel associated with the action under consideration, and the value of any construction associated with the action. Construction firms and workers are expected to originate from O'Fallon, Illinois or other regions surrounding Scott AFB.

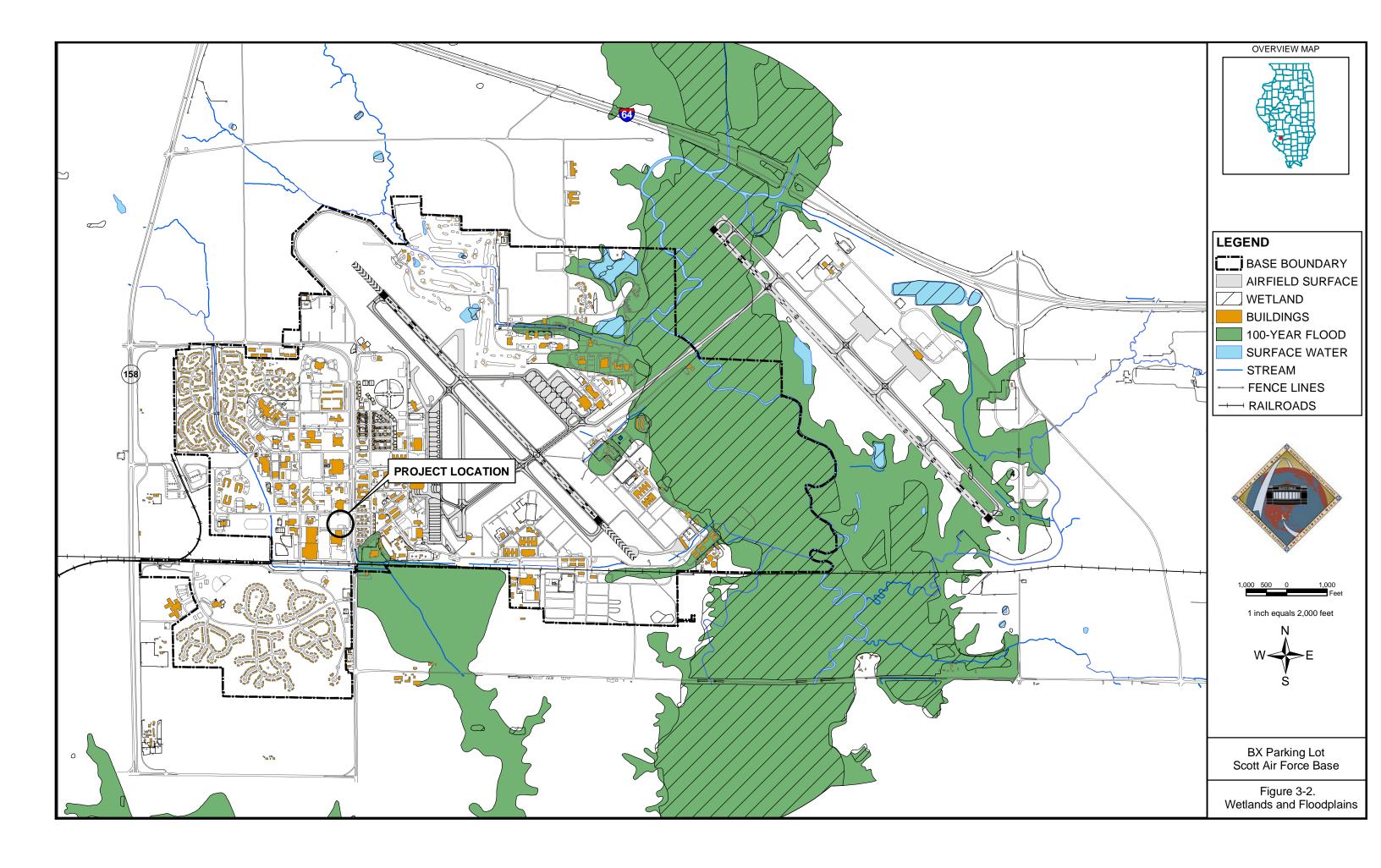
The population of St. Clair County in 2000 was 256,599 (U.S. Census Bureau, 2000). There are approximately 14,248 persons employed by Scott AFB (Table 3-3). In addition, the base supports approximately 17,020 retiree personnel. The total Scott AFB community, on- and off-base, comprises approximately 39,952 military and civilian personnel and their families. Table 3-3 contains a breakdown of base personnel.

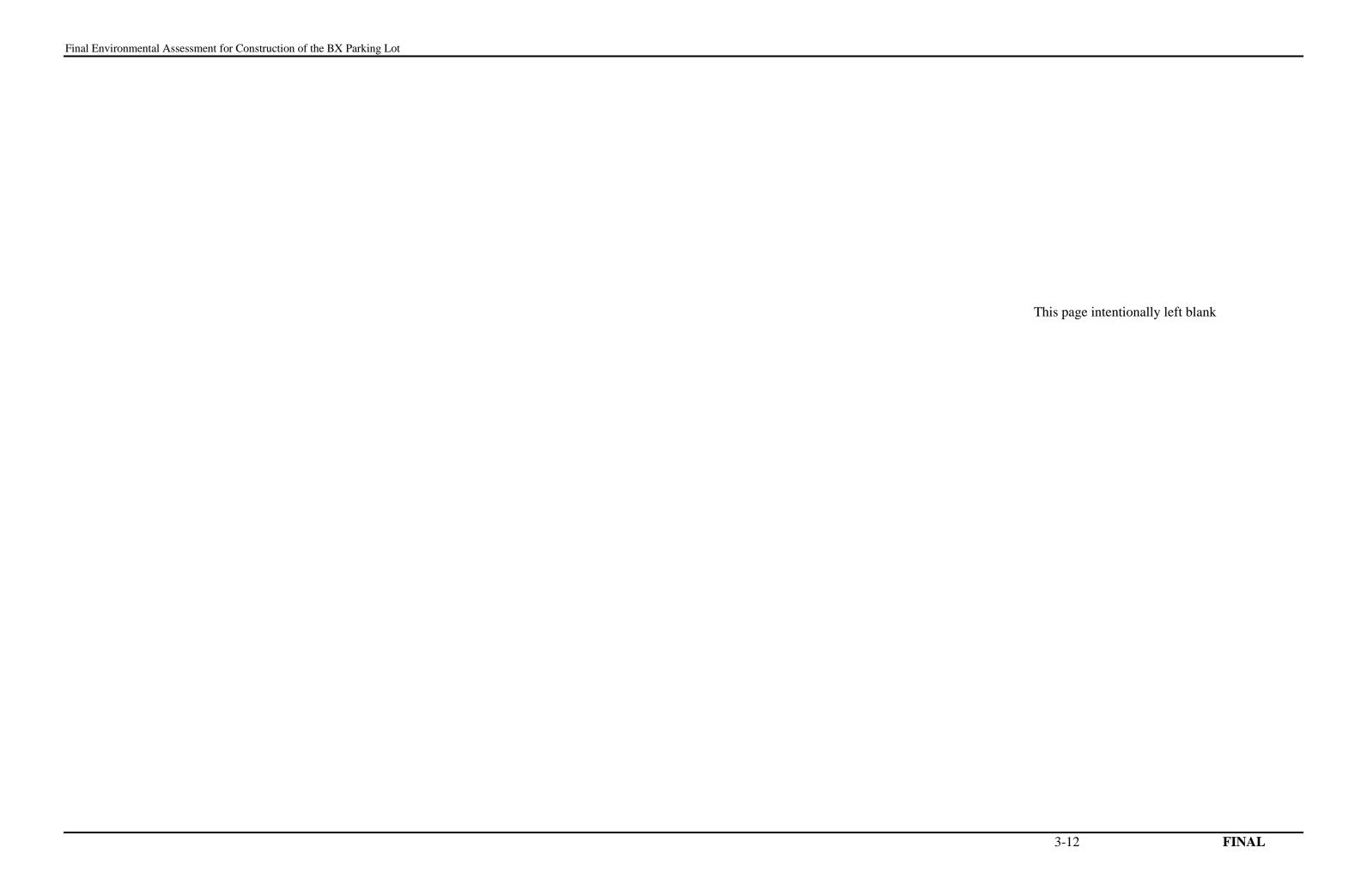
Table 3-3. Base Population

Personnel	Population
Active Duty Military	6,850
Air Force Reserve	1,138
Air National Guard	854
Civilians	5,416
Total Work Force	14,258
Family Members (Dependants)	8,314
Retired Military	17,020
Total Population	39,592

Source: Scott AFB, 2005

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3.8 CULTURAL RESOURCES

Historical and cultural resources are protected under the *National Historic Preservation Act* (16 USC 470a-470w), EO 11593, *Protection and Enhancement of the Cultural Environment*, the *Archaeological and Historic Preservation Act* (16 USC 469-469c), the *Historic Sites Act* (16 USC 461-467), and the *Illinois State Agency Historic Resources Preservation Act*. Federal agencies must provide an opportunity for comment and consultation with the Illinois Historic Preservation Agency and the Advisory Council on Historic Preservation when an action has the potential to affect historic or cultural sites. AFI 32-7065, Cultural Resources Management, must be complied with as well.

The National Park Service conducted an archeological assessment of Scott AFB in 1992. Archeological potential for the site of the Proposed Action is identified as being "highly disturbed" (Figure 3-3) and as having "an extremely low potential for the identification of additional cultural resources."

Previous archaeological and historical studies of Scott AFB did not identify any historical resources, e.g., historical buildings, archeological sites, or monuments, at the site of the Proposed Action (Thomason, 1992; National Park Service, 1992).

3.9 LAND USE

Originally, the land in the vicinity of Scott AFB was vegetated by tall grass prairie and mixed hardwood forest. Before the government acquired it, the primary land use was agriculture. Since that time, land management has included construction sites, residential and commercial use and permanent mowed turf grass (INRMP, 2002). Land cover at the site of the Proposed Action consists of mowed turf grass with broken concrete and asphalt and ornamental plantings. The BGP classified land use in the vicinity of the Proposed Action as administration (Figure 3-4). Land use immediately adjacent to the Proposed Action includes the following:

North - West Winters Street, Building 1900 (USTRANSCOM)

East - Landscaping, Scott Drive

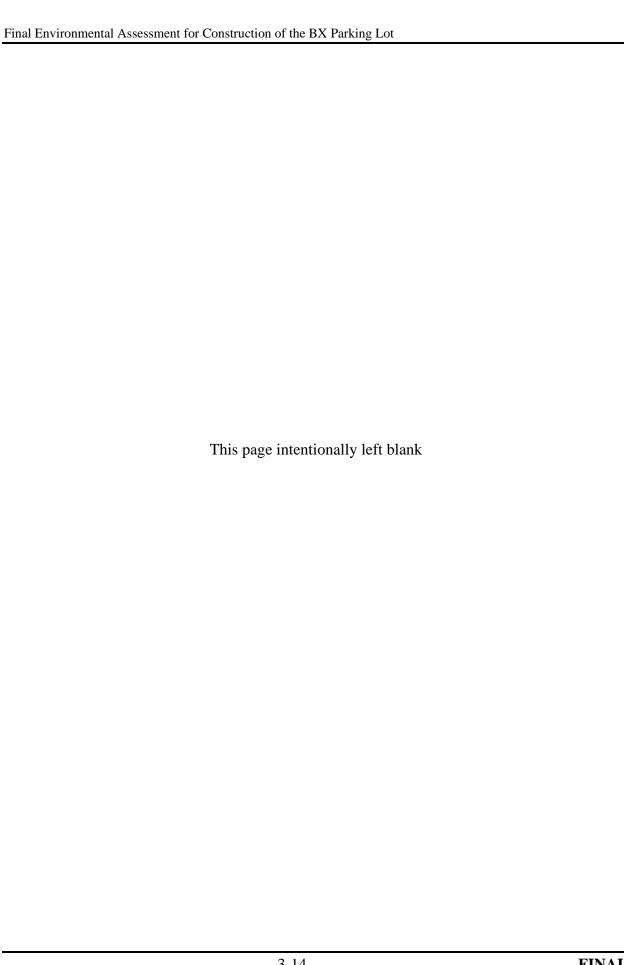
South - Parking, Building 1961 (USTRANSCOM Annex)

West - Existing Parking

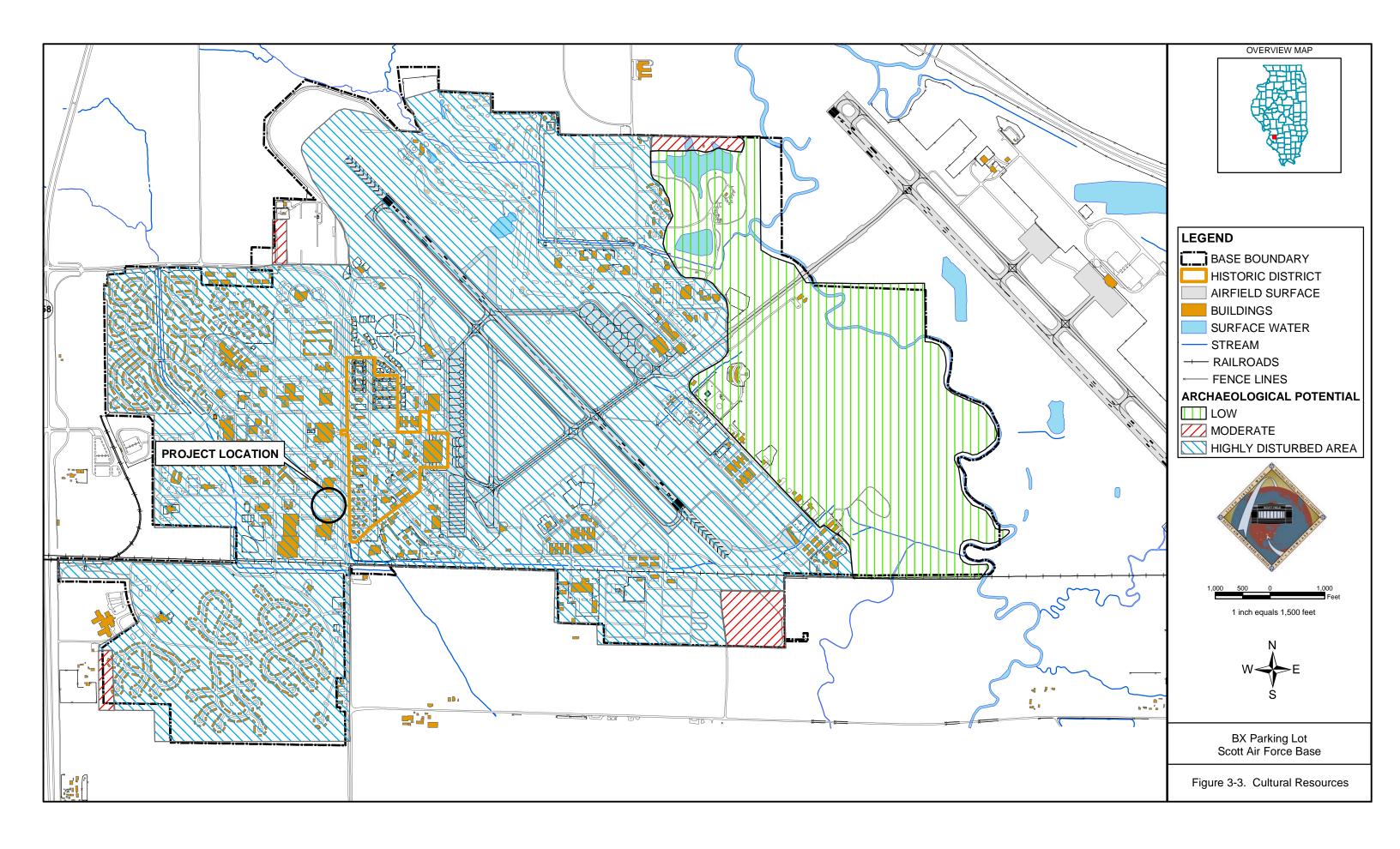
3.10 TRANSPORTATION SYSTEMS

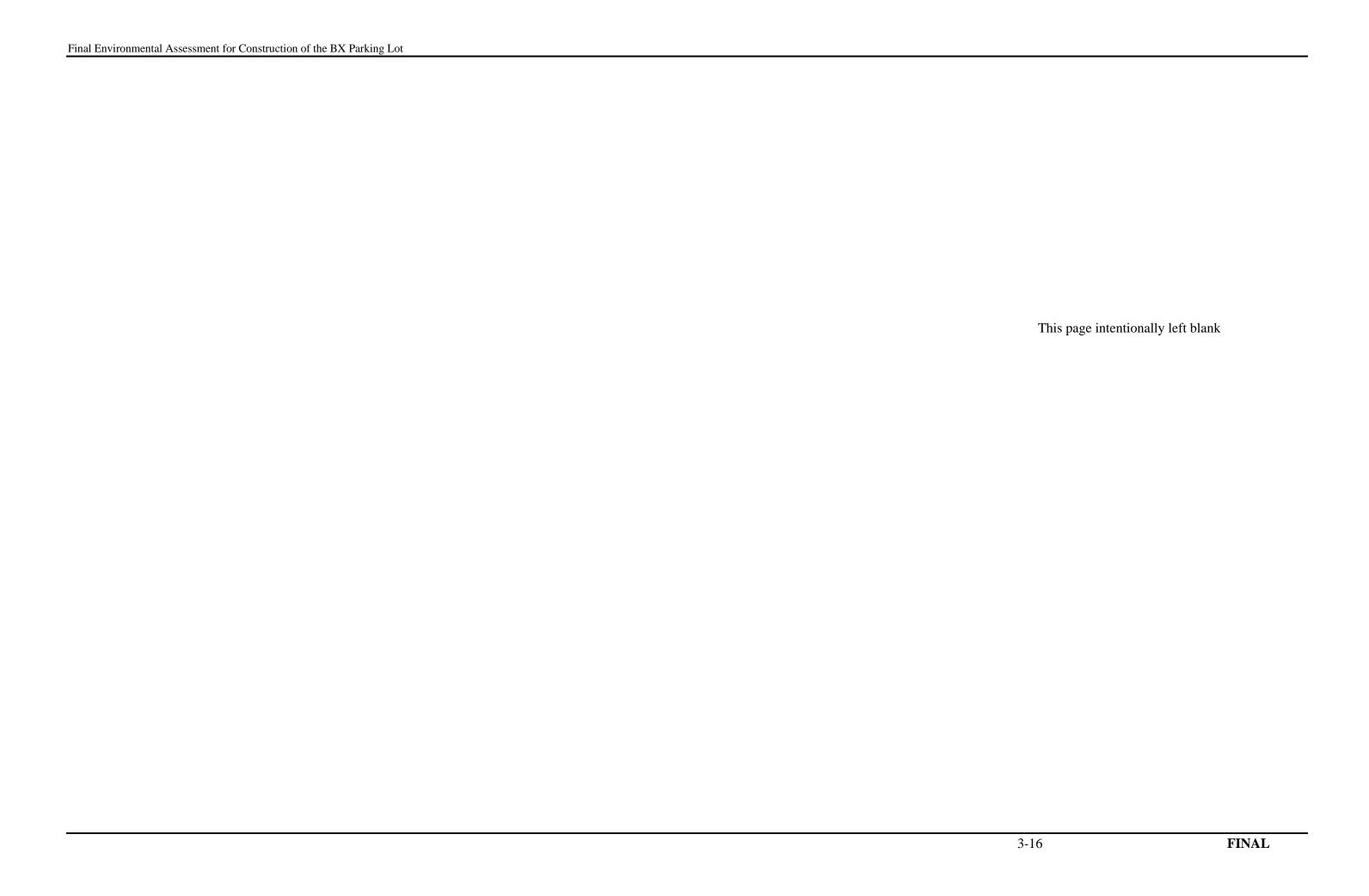
The Proposed Action is located near the intersection of West Winters Street and Scott Drive. A traffic study of the area surrounding the Proposed Action was completed in September 2003 (Gannett Fleming, 2003). The study recommended approximately \$830,000 worth of improvements to Scott Drive and West Winters Street as well as recommending improvements to the existing BX/Commissary parking lots. Results of the traffic study will be incorporated into the design of the proposed parking lot.

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3.11 AIRSPACE/AIRFIELD OPERATIONS

Based upon the Operational Constraints map included in the BGP (Figure 3-1), the construction areas involved with the Proposed Action are not located in a clear zone or an accident potential zone. Unified Facilities Criteria (UFC) 3-260-01 (formerly AFI 32-1123) states that to meet specific airspace/airfield operations criteria, construction must be more than 1,000 feet from the runway centerline, and constructed structures should be under a 7:1 ratio from the 1,000-foot line. The UFC also states that new facilities must be constructed at least 125 feet from the edge of all existing aircraft parking aprons to meet the apron clearance criteria specified in UFC 3-260-01. The site of the Proposed Action complies with these standards.

3.12 SAFETY AND OCCUPATIONAL HEALTH

Factors involving primary occupational safety and health issues are addressed in 29 CFR Occupational Safety and Health Standards. The Department of Labor administers these regulations, which are applicable at construction sites and buildings at Scott AFB. If the Proposed Action is implemented, all applicable provisions of the Corps of Engineers Manual EM 385-1-1, "General Safety Requirements," must be followed. As was discussed in Section 3.4 the site of the Proposed Action contained a leaking underground storage tank. EM 385-1-1 Section 6 details worker protections, safety requirements, and the appropriate sources for determining exposure levels if hazardous materials are encountered during the construction process.

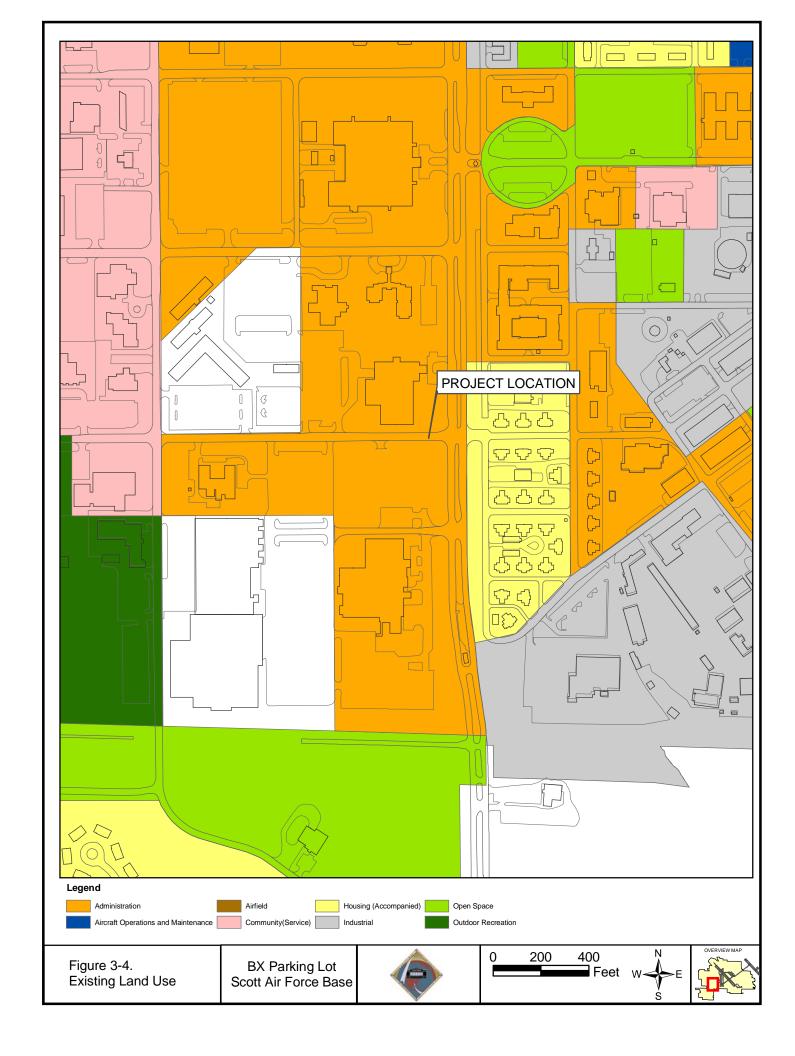
Unified Facilities Criteria 4-010-01 presents guidelines for anti-terrorism/force protection at military installations. These guidelines include such topics as access to facilities, facility siting, exterior design, interior design, and landscaping. In the event of a terrorist attack, the intent of this guidance is to improve security, minimize fatalities, and limit damage to facilities.

3.13 ENVIRONMENTAL MANAGEMENT – POLLUTION PREVENTION

The United States Air Force (USAF) recognizes the importance of pollution prevention (P2) in protecting the environment, achieving compliance objectives, and reducing waste disposal costs. Such successful P2 programs as recycling, waste minimization, product substitution, and process changes, among others, are planned or underway at Air Force installations worldwide.

Most tenant activities at Scott AFB participate in the recycling program. If the Proposed Action were implemented, the selected contractor would participate as well. All ferrous and non-ferrous metals from the project must be recycled. The contractor would also recycle general administrative refuse associated with this project. This refuse may include cardboard, mark 1 and 2 plastic bottles, metals, glass, aluminum and steel cans, and mixed paper. All recyclable material must be turned into the Base Recycling Center located at Building 3286. Hours of operation are 0730 to 1500 Monday through Friday and 0730 to 1100 on Saturdays.

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3.14 GEOLOGY AND SOILS

Pennsylvanian bedrock underlies Scott AFB at a depth of approximately 85 feet. Underlying the Pennsylvanian bedrock is the Chesterian Series sandstone. There are no geologic outcrops at Scott AFB. Soils in the vicinity of the Proposed Action are described as Muscatine silt loam with a 0-3 percent slope (USDA, 2003). Soils at the site of the Proposed Action have been highly disturbed by previous development. Soil borings taken at the site of the Proposed Action have shown that the soil underlaying the former concrete and asphalt pads is a sandy gravel approximately one foot thick. These soils were assumed to be the result of construction and are not the native soils. Underlying native soils consist of silts and clayey silts that grade to silty clays. These silty clays grade into a sandy silt at variable depths (Tetra Tech, 2004).

3.15 ENVIRONMENTAL JUSTICE

St. Clair County is a large, demographically diverse county, with communities ranging from urban areas of East St. Louis and Belleville to small rural towns east and west of Scott AFB. The year 2000 population of St. Clair County was approximately 67.9 percent Caucasian and 34.3 percent minorities, with the predominant minority described as African-American; 2.2 percent of the county's population is considered Hispanic (U.S. Census Bureau, 2000). There are no low-income or minority disadvantaged populations in the area of the Proposed Action.

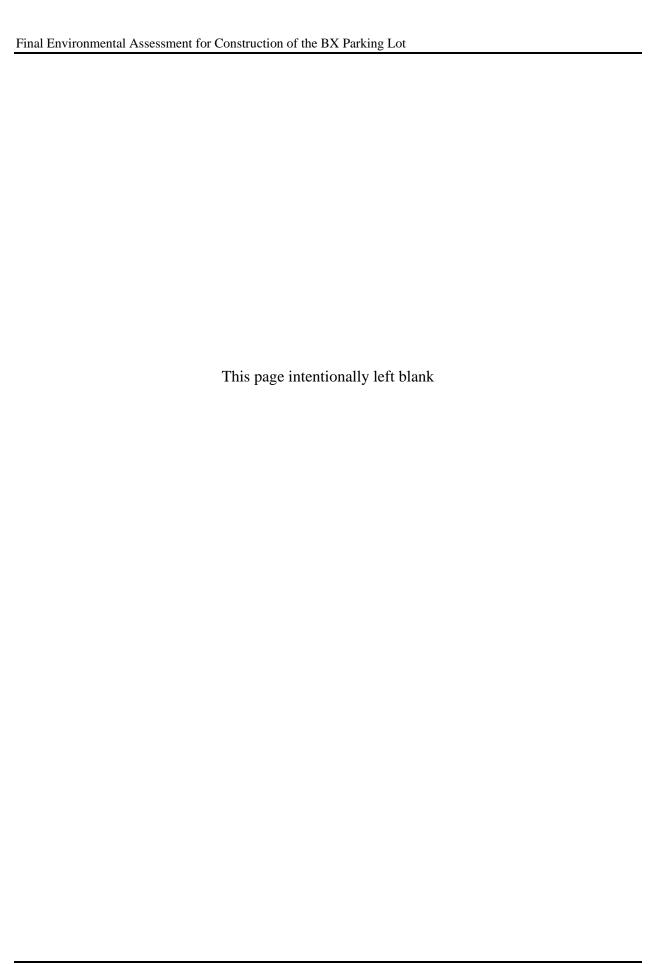
3.16 INDIRECT AND CUMULATIVE IMPACTS

The location of the Proposed Action is in a portion of Scott AFB that is considered to be an improved area that is highly disturbed. The current base plan (375 CES, 2004) indicates several potential projects in the vicinity of the Proposed Action. Potential future development includes the following:

- traffic and parking improvements to Scott Drive, West Winters Street, and the existing BX parking lot,
- construction of the Air Mobility Command/USTRANSCOM Joint Use Facility,
- demolition of Bldgs 1899, 1909, 1910, 1911, 1912 and construction of a parking lot,
- demolition of Bldg 1970 and construction of a parking lot, and
- demolition of Bldg 1961 and construction of Community Services Development Site.

Recent past developments in the vicinity of the Proposed Action have included the construction of the BX which was completed in 2003.

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4.0 ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

Environmental consequences of the Proposed Action and the No-Action Alternative are addressed in this section. The Proposed Action would include the construction of a new BX parking lot. The No-Action Alternative includes taking no action to improve the existing lot, thereby remaining status quo.

The analysis process determines the consequences of each action and the anticipated impact(s) that the action could have, if implemented. The Proposed Action and the No-Action Alternative could generate no impact to environmental issues, or encompass environmental consequences that may fall into the categories described in Table 4-1.

 Table 4-1.
 Description of Environmental Consequences

Word	Definition
Short-term	effects caused during the construction and/or initial operation of the action
Long-term	effects caused after the action has been completed and/or the action is in full and
	complete operation or effects of the action if not approved
Irreversible	those effects caused by the proposal that cannot be reversed
Irretrievable	effects caused by an alternative that change outputs or commodities (e.g. trees,
	cattle, hiking, fishing) of land's use and must be reversible
Positive	constructive, progressive effects
Negative	harmful, destructive, unsafe, risky
Minor	trivial, irrelevant, inconsequential
Major	vital, primary, important
Adverse	unfavorable, undesirable, harsh
Direct	caused by the action and occur at the same time and place
Indirect	caused by the action and effects occur later in time or farther removed in
	distance, but reasonably foreseeable
Cumulative	nonrelated actions that have, are, or probably would occur in the same locality

A **significant** impact, as it applies to NEPA, requires considerations of both context and intensity. The following descriptions are brief and do not cover all aspects of the terminology. Context means that the significance of an action must be analyzed in several arenas, such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the Proposed Action. Intensity refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. Impacts may be both beneficial and adverse. Intensity also includes the degree to which the Proposed Action and alternatives affect public health or safety. A summary table of the environmental resources that are determined to be impacted by the Proposed Action and the No-Action Alternative is provided in Section 4.18.

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4.2 AIR QUALITY

4.2.1 Proposed Action

A conformity determination would not be required, as the total of direct and indirect emissions from construction activities at the site of the Proposed Action are below de minimus thresholds specified at 40 CFR 93.153(b)(1). Specifically stated, implementation of the Proposed Action would not increase emissions over baseline emission levels. The statutory requirements of conformity are included in the CAA, section 176(c) and require the EPA to publish regulations requiring federal actions to conform to applicable state or federal implementation plans (SIPs or FIPs) to ensure that the actions do not interfere with strategies employed to attain National Ambient Air Quality Standard. The EPA proposed conformity regulations entitled *Determining* Conformity of General Federal Actions to State or Federal Implementation Plans. These were brought into effect on January 31, 1994. The intent of the conformity ruling is to ensure that federal actions do not adversely affect the timely attainment and maintenance of air quality standards. Air Force personnel and installation planners are to analyze each Air Force action, in accordance with EPA regulation 40 CFR 93, to ensure conformity with the applicable SIP or FIP. The conformity analysis examines the impacts of the direct and indirect air emissions from a proposed Air Force action and determines whether the action conforms to the applicable SIP or The Proposed Action would be in compliance with, or consistent with, all relevant requirements and milestones contained in the Illinois SIP. Contractor(s) and subcontractor(s) of this project must comply with these regulations, including 42 USC 7418(a) (state and local requirements).

A **short-term minor** increase in emissions from equipment and vehicles would occur during the construction phase of the Proposed Action. Fugitive dust and particulate matter would be emitted into the air from access roads, stockpiles, and/or other work areas. These emissions would be temporary and would return to pre-construction levels once the parking lot was completed. Water sprinkling would be the preferred method of controlling fugitive dust, especially if a nuisance or road hazard due to fugitive dust particulate arises, or is anticipated due to windy or dry weather conditions.

The potential for organic vapors to result from soil contamination was evaluated as part of the RI/FS for SS-06. After analyzing the results of the surface soil sampling and encountering no vapors in the breathing zone of work areas the study concluded that there are no apparent air pathways for contaminants at SS-06 (Tetra Tech, 2005). However, monitoring of organic vapors would be required during excavation activities to ensure no organic vapors are being released from the soil.

4.2.2 No-Action Alternative

There would be **no impact** to air quality issues if this alternative were selected.

4-2 FINAL

4.3 NOISE

4.3.1 Proposed Action

Implementation of the Proposed Action would generate **short-term**, **minor adverse impacts** throughout the construction phase of the project. The amount of noise generated from construction and operational activities would be negligible and temporary. Post-construction noise levels surrounding the parking lot would remain at or near pre-construction levels.

4.3.2 No-Action Alternative

There would be **no impact** from noise-related issues if this alternative were selected.

4.4 WASTES, HAZARDOUS MATERIALS AND STORED FUELS

4.4.1 Proposed Action

The site of the Proposed Action is located at IRP site SS-06. This site is the location of the former Army and Air Force Exchange Service (AAFES) gas station and there is the potential for contaminated soils to be encountered during excavations for storm water sewers and other underground utilities. **No impacts** related to potential contamination are expected as long as workers follow the required Health and Safety Plan and Emergency Response Plan. These plans address the proper personal protective equipment and necessary safety precautions required to minimize worker and public exposure to potential contamination. Any potentially contaminated soils encountered during excavation would be stockpiled on-site and disposed of in accordance with appropriate Scott AFB, State, and Federal regulations.

A potential short-term positive impact may result from implementation of the Proposed Action. According to the Pre-Draft Feasibility Study one of the remediation options for the site is to build an engineered barrier (e.g. concrete cap) and create institutional controls that would reduce the potential for exposure from contaminated soils. The positive impact is limited to the short term because it is anticipated that with or without the Proposed Action the site would eventually be remediated under the IRP.

No impacts related to LBP or ACM are expected from implementation of the Proposed Action. Asbestos-containing materials, LBP, paints containing chromate, and/or transformers containing polychlorinated biphenyl (PCB) fluid are prohibited from use during implementation of the Proposed Action. Noncompliance could generate Notices of Violation for Scott AFB and legal action could be implemented against the accountable contractor.

Hazardous materials such as petroleum products used during construction activities would be restricted. If a contractor cannot avoid generating hazardous waste, the waste must be disposed of according to contract specifications and environmental laws. Improper usage of hazardous materials or disposal of hazardous wastes during construction activities could result in Notices of Violation from the IEPA, leading to possible fines and litigation.

4-3 FINAL

4.4.2 No-Action Alternative

There would be the potential for a **short-term adverse impact** to the environment from wastes or hazardous materials, if the No-Action Alternative were selected. Implementation of the Proposed Action would create an engineered barrier that would reduce the potential for exposure to contaminated soil. If No-Action is taken at the site then there is a slightly increased potential for exposure to contaminated soil. This potential for exposure to contaminated soil would remain until the site was remediated through the IRP.

4.5 WATER RESOURCES

4.5.1 Proposed Action

No additional adverse impacts to groundwater quality are anticipated from the implementation of the Proposed Action. Groundwater at the site already contains elevated levels of contaminants and it is not anticipated that the construction of a parking lot would contribute to further groundwater contamination. Scott AFB is in the process of implementing a Land Use Control Memorandum of Agreement that prohibits the use of groundwater as a source of drinking water. Therefore, contaminated groundwater is not considered an exposure route for petroleum contamination at the site of the Proposed Action (Tetra Tech, 2005).

No adverse impacts to surface water are anticipated as long as proper best management practices (BMP) are used and any contaminated soil encountered during excavations is properly stockpiled and disposed of in accordance with Scott AFB, State, and Federal regulations. Proper BMPs vary according to site conditions but may include silt fences, hale bales, protection of storm water inlets, and seeding or otherwise protecting disturbed soils.

Review of Federal Emergency Management Agency flood maps, Scott AFB wetland maps, and an on-site preliminary survey indicated that no floodplains or wetlands were present at the site of the Proposed Action. As a result, the action would have **no impact** to existing wetlands or floodplains. All appropriate measures and best management practices would be taken during construction activities to minimize erosion and control sedimentation.

4.5.2 No-Action Alternative

There would be **no impact** to surface water, groundwater, wetlands, or floodplains if this alternative were selected.

4.6 BIOLOGICAL RESOURCES

4.6.1 Proposed Action

There are no significant or unique biological resources located at the site of the Proposed Action. Therefore, **no adverse impacts** to biological resources are anticipated from implementation of the Proposed Action. In locations where it is feasible, the existing landscaping would be incorporated into the design of the parking lot.

4-4 FINAL

4.6.2 No-Action Alternative

No impact to biological resources would result from the implementation of this alternative.

4.7 SOCIOECONOMICS

4.7.1 Proposed Action

Short-term and long-term minor positive impacts for the construction industry and local economy are anticipated from implementation of the Proposed Action. Construction of a new parking lot would relieve some of the parking pressure at the base commissary and BX and provide a more enjoyable shopping experience. Traffic and parking studies have shown that limited parking and traffic congestion discourages shopping and results in a decrease in revenues (MTMC, 1987). The construction of a parking lot is not anticipated to significantly increase long-term employment at the base and as such there would be **no impact** to housing demands, populations, or educational needs, if the Proposed Action were implemented.

4.7.2 No-Action Alternative

There would be an unavoidable **short-term**, **minor adverse impact** associated with the loss of man-hours that have been applied for preliminary design and preparation of the Proposed Action.

There would be a **long-term minor adverse impact** to socioeconomics if the No-Action Alternative were implemented. As was discussed in Section 4.7.1 the lack of sufficient parking for the BX and commissary results in customer dissatisfaction which in turn lead to decreases in sales revenue.

4.8 CULTURAL RESOURCES

4.8.1 Proposed Action

No impacts are anticipated from implementation of the Proposed Action; however, the discovery of an artifact or historical object would require all construction activities to cease until the Cultural Resource Specialist and/or the Base Historian is notified. Construction activities must not proceed until the aforementioned personnel provide approval. Archeological resources on either public or Native American lands cannot be excavated, removed, damaged, or otherwise altered without a permit (32 CFR 229.4(a)(5)(b)) and approval from the Cultural Resources Specialist at Scott AFB.

4.8.2 No-Action Alternative

There would be **no impact** to cultural and/or historical resources if the No-Action Alternative were selected. If construction does not occur, there would be no possibility of excavating any type of cultural resource, i.e. artifact, as part of this project.

4-5 FINAL

4.9 LAND USE

4.9.1 Proposed Action

Construction of the new facility would involve the conversion of the current land use from a mowed turf grass/former parking lot to a developed lot. This conversion would cause **short- and long-term minor adverse impacts** to land use as the Proposed Action site was previously developed. The current and future land use, as described in the BGP, is compatible with the construction of a new parking lot.

4.9.2 No-Action Alternative

There would be **no impacts** to land use if this alternative were selected.

4.10 TRANSPORTATION SYSTEMS

4.10.1 Proposed Action

Short-term minor increases in traffic are anticipated from construction vehicles, and could increase road hazards to the public during the construction phases of the Proposed Action.

Long-term minor increases in vehicular traffic are anticipated as a result of increased use of the new parking lot. The precise increase in traffic is not known as it will be dependant on costumer use of the parking lot. The new BX parking lot would be designed to minimize traffic conflicts as vehicles exit the parking lot and the addition of new parking spaces would result in an increase in parking availability for BX costumers. The positive impact of an increase in parking offsets the minor adverse impact of increased traffic. The increase in parking space would also provide additional parking for the nearby USTRANSCOM facility.

In summary construction traffic is anticipated to have a **short-term minor adverse impact** to the public, pending completion of the facility. Increases in traffic flow from daily activities at the site of the Proposed Action are expected but this increase would not be significant and would be offset by the increase in the availability of parking. Therefore, **no long-term adverse impacts** are anticipated.

4.10.2 No-Action Alternative

Short-and long-term minor impacts to parking would be expected if the No-Action Alternative were implemented. These impacts would be the result of insufficient parking in the vicinity of the BX and Commissary.

4.11 AIRSPACE/AIRFIELD OPERATIONS

4.11.1 Proposed Action

The Proposed Action is located outside of any clear zone or accident potential zone. Therefore, **no adverse impacts** to airspace or airfield operations are anticipated.

4-6 FINAL

4.11.2 No-Action Alternative

No impacts to airspace/airfield operations are anticipated if the No-Action Alternative were selected.

4.12 SAFETY AND OCCUPATIONAL HEALTH

4.12.1 Proposed Action

No impacts to the health of occupational and construction workers are anticipated to occur with implementation of the Proposed Action, provided workers comply with OSHA regulations and standards during construction activities. The site is known to contain soils contaminated with petroleum products and construction workers would follow an approved Health and Safety Plan and Emergency Response Plan to minimize exposure to contaminated soils. A *Pre-Draft Remedial Investigation/Feasibility Study* (Tetra Tech, 2005) has been conducted at the site and the preliminary results indicate that the levels of contamination at the site do not pose an unacceptable health risk to industrial/commercial workers or construction workers. Commercial/industrial workers are workers that are exposed to the first six inches of soil, while construction workers are those that are exposed to soil from the surface to a depth of 10 feet bgs.

4.12.2 No-Action Alternative

There would be a **no impacts** to safety and health if the No-Action Alternative were implemented. According to the Pre-Draft Remedial Investigation/Feasibility Study, there is little risk of exposure to contaminated soils by the industrial and commercial workers that currently work around the site.

4.13 ENVIRONMENTAL MANAGEMENT – POLLUTION PREVENTION

4.13.1 Proposed Action

In support of national environmental efforts, the contractor would recycle all ferrous and non-ferrous metals from the project. The contractor would also recycle general administrative refuse associated with this project. This refuse includes cardboard, mark 1 and 2 plastic bottles, glass, aluminum and steel cans, and mixed paper. The Base Recycling Center, Building 3286, on South Drive will accept these items Monday through Friday between 0730 and 1500 and Saturdays between 0730 and 1100. The use of 'green' products, reuse/recycling, and minimization of solid or hazardous waste would be encouraged during new construction activities at the sites of the Proposed Action as part of the Affirmative Procurement Plan.

Implementation of the Proposed Action would have **no impacts** to pollution prevention or environmental management programs, provided the above guidelines are followed.

4.13.2 No-Action Alternative

If the No-Action Alternative were implemented, no construction activities would occur on site and **no impacts** to environmental management or pollution prevention programs would be anticipated.

4-7 FINAL

4.14 GEOLOGY AND SOILS

4.14.1 Proposed Action

No additional adverse impacts to soils are anticipated from the implementation of the Proposed Action. Sub-surface soils at the site already contain elevated levels of contaminants and it is not anticipated that the construction of a parking lot would contribute to further contamination. Placing a concrete parking lot over the existing contaminated soils would limit the potential for exposure to these soils.

Construction contractors would use erosion control measures consistent with the Natural Resources Conservation Service Illinois Urban Manual. Necessary measures and BMPs would be implemented to reduce soil erosion and siltation during construction. Interim measures to prevent erosion during construction would be implemented and could include the installation of staked straw bales, sedimentation basins, and temporary mulching. Proper grading would be accomplished to allow water to flow from the roadway and into the drainage system, rather than standing and eroding the shoulder or pavement edge. All construction areas with bare soil would be mulched and seeded immediately upon completion of construction.

Phase I of the National Pollutant Discharge Elimination System (NPDES) storm water program presently covers discharges from large construction activities disturbing five acres or more of land. Phase II of NPDES storm water program covers small construction activities disturbing between one and five acres. Phase II became final on December 8, 1999, with small construction permit applications due by March 10, 2003. "Disturbance" refers to exposed soil resulting from activities such as clearing, grading, and excavating. Construction activities can include road building, construction of residential houses, office buildings, and industrial sites, and demolition. Implementation of the Proposed Action or would disturb approximately two acres of land and would require Scott AFB to apply for a Phase II NPDES permit.

Implementation of the Proposed Action would have **no impact** to soils or geological resources, provided all of the aforementioned recommendations are applied.

4.14.2 No-Action Alternative

There would be **no impact** to geological resources or soils if the No-Action Alternative were selected since the proposed construction sites would remain undisturbed.

4.15 ENVIRONMENTAL JUSTICE

4.15.1 Proposed Action

There is no minority or low-income populations in the areas of the Proposed Action; therefore, EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, is not applicable.

Implementation of the Proposed Action would have **no impact** to minority or low-income populations.

4-8 FINAL

4.15.2 No-Action Alternative

The No-Action Alternative would have **no impact** to minority or low-income populations.

4.16 INDIRECT AND CUMULATIVE IMPACTS

4.16.1 Proposed Action

Several construction projects have occurred in the vicinity of the Proposed Action and several future projects are planned for the same area (see Section 3.16). These projects are not anticipated to have significant cumulative effects. Any new projects would require NEPA review prior to the design and construction of additional facilities. There are no known indirect impacts that have not already been discussed under the appropriate category (e.g. Transportation Systems).

4.16.2 No-Action Alternative

No indirect or cumulative impacts are anticipated under the No-Action Alternative.

4.17 UNAVOIDABLE ADVERSE IMPACTS

4.17.1 Proposed Action

There are several short-term unavoidable minor adverse impacts summarized in Table 4-2 on the following page; however, there would be **no unavoidable significant adverse impacts** if the Proposed Action were implemented.

4.17.2 No-Action Alternative

There are several short-term unavoidable minor adverse impacts summarized in Table 4-2 on the following page; however, there would be **no unavoidable significant adverse impacts** if the No-Action Alternative were implemented. Potential impacts are summarized in Table 4-2 and include impacts to socioeconomics, transportation systems, and safety and occupational health.

4.18 SUMMARY TABLE OF ENVIRONMENTAL CONSEQUENCES

Table 4-2 provides a summary of the potential environmental impacts of the Proposed Action and the No-Action Alternative.

4-9 FINAL

Table 4-2. Comparison of Environmental Consequences*

Environmental Resources	Proposed Action	No-Action Alternative
Air Quality	Short-term – Minor Adverse Impact	Short-term – No Impact
	Long-term – No Impact	Long-term – No Impact
Noise	Short-term – Minor Adverse Impact	Short-term – No Impact
	Long-term – No Impact	Long-term – No Impact
Wastes, Hazardous	Short-term – Minor Positive Impact	Short-term – Minor Adverse Impact
Materials and Stored Fuels	Long-term – No Impact	Long-term – No Impact
Socioeconomics	Short-term – Minor Positive Impact	Short-term – Minor Adverse Impact
	Long-term – Minor Positive Impact	Long-term – Minor Adverse Impact
Land Use	Short-term – Minor Adverse Impact	Short-term – No Impact
	Long-term – Minor Adverse Impact	Long-term – No Impact
Transportation Systems	Short-term – Minor Adverse Impact	Short-term – Minor Adverse Impact
	Long-term – No Impact	Long-term – Minor Adverse Impact
Unavoidable Adverse	Short-term – Minor Adverse Impact	Short-term – Minor Adverse Impact
Impacts	Long-term – Minor Adverse Impact	Long-term – Minor Adverse Impact

^{*}Environmental resources having **no impact** have been excluded from this matrix.

4-10 **FINAL**

5.0 REFERENCES

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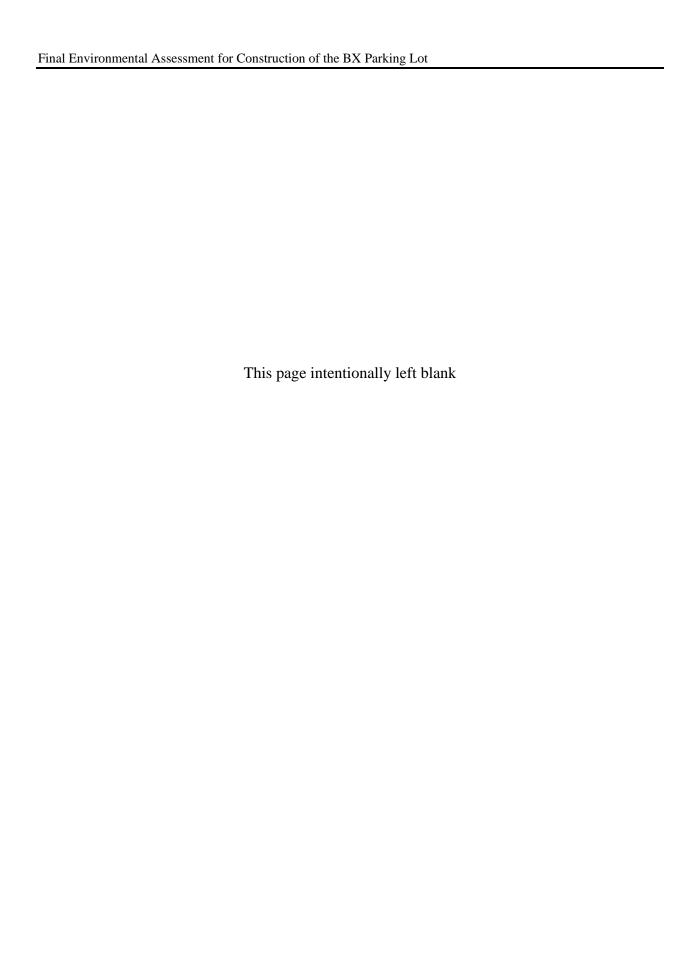
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5-2 FINAL

6.0 LIST OF PREPARERS

Brian Tutterow SAIC, 8 years experience

6-1 FINAL



6-2 FINAL

7.0 PERSONS CONTACTED

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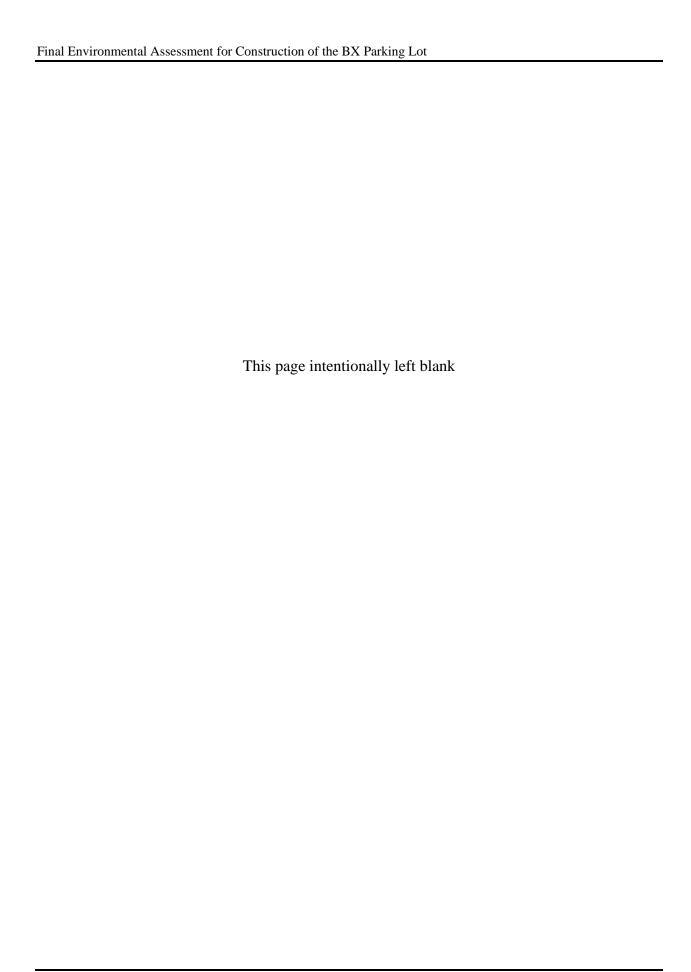
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Scott AFB, IL

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APPENDIX A AIR FORCE FORM 813



REQUEST FOR ENVIRO	NMENTAL IMPACT ANALYSIS	Report Control Symbo RCS:	I,			
INSTRUCTIONS: Section I to be completed by necessary. Reference appr	y Proponent. Sections II and III to be completed by Environmental Pla opriate item number(s).	nning Function. Contin	ue on separate s	sheets as		
SECTION I - PROPONENT INFORMATI	ON					
1. TO (Environmental Planning Function) 2. FROM (Proponent Organization and functional address symbol) 2a. TELEPHONE NO. 375 CES/CECD 701 Hangar Rd SAFB, IL 62225 2a. TELEPHONE NO. Renant Cheng 256-4766						
3. TITLE OF PROPOSED ACTION						
Construct BX Parking Lot						
4. PURPOSE AND NEED FOR ACTION (Identify decis	ion to be made and need date)					
	(see attached)					
5. DESCRIPTION OF ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action)					
	(see attached)	G.				
6. PROPONENT APPROVAL (Name and Grade)	6a. SIGNATURE	6b. D.	ATE			
	Rent/1	1	9 MAT	05		
	MENTAL SURVEY (Check appropriate box and describe potential positive effect; 0=no effect; -= adverse effect; U=unknown effect)	tial +	0	- U		
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAN		X				
8. AIR QUALITY (Emissions, attainment status, state in	nplementation plan, etc.)		Y	V		
9. WATER RESOURCES (Quality, quantity, source, etc.		×				
10. SAFETY AND OCCUPATIONAL HEALTH (Asbesto aircraft hazard, etc.)	rd/wildlife	X	(
11. HAZARDOUS MATERIALS/WASTE (Use/storage/g	eneration, solid waste, etc.)		×	N N		
12. BIOLOGICAL RESOURCES (Wetlands/floodplains,	threatened or endangered species, etc.)		×	/		
13, CULTURAL RESOURCES (Native American burial	sites, archaeological, historical, etc.)		×	71		
14. GEOLOGY AND SOILS (Topography, minerals, geo	othermal, Installation Restoration Program, seismicity, etc.)			X		
15. SOCIOECONOMIC (Employment/population project	tions, school and local fiscal impacts, etc.)		X	A		
16. OTHER (Potential impacts not addressed above.)				<i>y</i>		
SECTION III - ENVIRONMENTAL ANAL	YSIS DETERMINATION					
17. PROPOSED ACTION QUALIFIES	FOR CATEGORICAL EXCLUSION (CATEX) #; OR					
/\	QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS	IS REQUIRED				
18. REMARKS \$16 THERE WERE 5 FORMER US	TS AT THIS LOCATIONS.					
	'S AN ACTIVE ENVIRONMENTAL REST	RATION SIT	Ew/Grew	WOWARDA		
	water construction permit					
19. ENVIRONMENTAL PLANNING FUNCTION CERTIL (Name and Grade)	FICATION 19 a. SIGNATURE	19 b.	DATE			
JOHN W. PATTERSON CHIEF, ENVIRONMENTA	John W. Patterse	2	4 Jun	05		

AF FORM 813, 19990901 (EF-V1)

THIS FORM CONSOLIDATES AF FORMS 813 AND 814.

PAGE OF PAGE(S)

4.0 PURPOSE AND NEED FOR ACTION

Parking lot is needed to provide needed additional parking for the BX/Commissary area.

4.1 Purpose of the Action

There are not enough parking spaces to support the patrons of the BX and Commissary.

4.2 Need for the Action

There are not enough parking spaces to support the patrons of the BX and Commissary.

4.3 Related EISs/EAs and Other Documents

This proposed action has received, or is applying for, the following: Environmental Assessment.

5.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

5.1 Description of the Proposed Action

Construct a new parking lot to provide an additional 200 parking spaces. New parking lot will have new storm drains to handle the storm water.

5.2 Anticipated Environmental Issues

5.3 Design, Evaluation, and Selection Critera

The site was selected due to its proximity to the BX/Commissary area and is currently vacant.

5.4 Description of Alternatives

5.4.1 No-Action Alternative

Patrons of the BX and Commissary will continue to be inconvenienced due to inadequate parking.

5.4.2 Proposed Action

Construct a new parking lot to provide an additional 200 parking spaces. New parking lot will have new storm drains to handle the storm water.

5.4.3 Other Reasonable Action Alternatives

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APPENDIX B SITE PHOTOGRAPHS



Proposed Site Location



View facing west from the southeast corner of the site of the Proposed Action. The drainage swale is visible in the foreground.



View facing north. USTRNASCOM is visible in the background.



View facing northwest at the site of the Proposed Action. A monitoring well is visible in the foreground.



View facing east towards Scott Drive.

Proposed Site Location



View facing southeast at several bald cypress trees. The design of the parking lot will incorporate these trees.



View facing south at the site of the Proposed Action. The current BX parking lot is visible in the background.



View facing north at several river birch trees.



View facing south with tulip trees and river birch visible in the background. An electrical box is visible in the foreground.

Proposed Site Location



View facing southwest at existing landscaping. The entrance to the former AAFES gas station is visible to the left.



View facing north at landscaping to the west of the Proposed Action . The parking lot design will incorporate this landscaping.



View facing south at sidewalk that connects the USTRANSCOM and USTRANCOM Annex. A monitoring well is visible in the foreground.

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APPENDIX C
PUBLIC COMMENTS



The Draft Environmental Assessment and Finding of No Significant Impact for the BX Parking Lot EA were released for public comment from 22 September 2005 to 10 October 2005. The Public Notice as it appeared in the Belleville News Democrat is included below. No public comments were received.

PUBLIC NOTICE OF AVAILABILITY

Department of the Air Force Scott Air Force Base 375th CEV

Notice of Availability of the *Draft Environmental Assessment (EA)* for the Construction of the BX Parking Lot, St. Clair County, Scott Air Force Base, Illinois.

Pursuant to the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality, a Draft EA has been prepared to analyze the potential impacts associated with the construction of a new parking lot at the corner of West Winters Street and Scott Drive. The Draft EA is available for public review at the Belleville Public Library-Main Branch 121 East Washington Street, Belleville, Illinois and the Scott Air Force Base library located at 510 Ward Drive, Building 1940 Scott AFB, Illinois.

Public Comments on the EA will be accepted for 15 days from the first publication of this notice. Written comments and inquiries on the EA should be directed to: 375th Airlift Wing, Public Affairs Office, Fax: (618) 256-8837, or E Mail 375AW.PA@SCOTT.AF.MIL



APPENDIX D REMEDIATION AMENDMENT

Amendment to the

Environmental Assessment for the Construction of the BX Parking Lot St Clair County Scott Air Force Base, Illinois

Prior to the completion of the Final Environmental Assessment (EA) for the Construction of the BX Parking Lot, a meeting was held between the 375th Civil Engineering Squadron Environmental Management Flight and the Illinois Environmental Protection Agency to discuss remediation activities at the site of the proposed parking lot. The meeting resulted in a plan to accelerate the remediation activities at the site of the proposed parking lot. The clean up would occur prior to the construction of the BX Parking Lot and would include the excavation and removal of contaminated soils. An on-site laboratory is proposed to evaluate excavated soils and excavation would continue until the soil contaminants are determined to be at acceptable levels. Once soils have been excavated the new parking lot would be constructed and monitoring wells would be installed to evaluate the remediation effort.

The acceleration of the remediation activities is not anticipated to alter the Finding of No Significant Impact (FONSI) for the Construction of the BX Parking Lot. The FONSI evaluated the proposed parking lot under the premise that contamination was present at the site of the Proposed Action. Under the plan to accelerate the clean up it is anticipated that levels of soil contamination would be lower than the levels considered in the EA and therefore potential environmental impacts would be less than those evaluated in the EA.